

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

<b>DYSON, INC.,</b>	)	
<b>Plaintiff,</b>	)	<b>Case No. 14 C 9442</b>
	)	
v.	)	<b>Judge Joan B. Gottschall</b>
	)	
<b>EURO-PRO OPERATING LLC and</b>	)	
<b>EURO-PRO SALES COMPANY,</b>	)	
<b>Defendants.</b>	)	

**MEMORANDUM OPINION AND ORDER**

Defendant Euro-Pro Operating LLC, which is affiliated with defendant Euro-Pro Sales Company (collectively, “Euro-Pro”), runs advertisements claiming that “the one and only industry-recognized test of carpet cleaning,” performed by an independent laboratory, shows that its “Shark Rotator Powered Lift Away” vacuum (models NV650, NV651 and NV652) deep cleans carpets better than plaintiff Dyson’s DC65 “Animal” vacuum.<sup>1</sup> Dyson contends that Euro-Pro’s advertising is false and misleading and, therefore, violates § 43(a) of the Lanham Act, 15 U.S.C. § 1125(a) (Count I) and the Illinois Deceptive Trade Practices Act, 815 Ill. Comp. Stat. § 510/1, *et seq.* (Count II). It also contends that Euro-Pro engaged in unfair competition by misrepresenting, concealing, or omitting material facts in its advertising in violation of Illinois common law (Count III).

Dyson’s motion for a preliminary injunction is before the court. Dyson seeks, among other things, to enjoin Euro-Pro from continuing with its advertising campaign and to require Euro-Pro to disseminate corrective packaging to remove its disputed performance claim. The

---

<sup>1</sup> The NV650, NV651, and NV652 are identical mechanically, but are offered in different colors or are packaged with different accessories. The court will refer to the models collectively as the “NV650” unless it is necessary to reference specific models.

court held a four-day evidentiary hearing, followed by closing arguments. For the following reasons, although Dyson has established a likelihood of establishing that Euro-Pro is liable for past wrongful activity, it has not shown a sufficient likelihood of success as to injury in the future or that the other preliminary injunction elements support the drastic remedy of injunctive relief. Accordingly, Dyson's motion for a preliminary injunction is denied.

## **I. BACKGROUND**

### **A. The Witnesses**

Dyson called Edward Culley (Dyson's president), Leonore Kaplan (Dyson's competitive intelligence manager, who is in charge of internal product testing of Dyson and competitor vacuums), and Susan Goldsmith (president, managing director, technical services director, and founder of IBR Laboratories, which was commissioned by Dyson to test the DC65 and NV650 vacuums). The court permitted Goldsmith to testify as an expert in vacuum performance testing, including the use of ASTM F608 and ASTM F655 (discussed below), subject to cross-examination.

Euro-Pro called Karyn Medler (Euro-Pro's senior director of testing and evaluation, who is in charge of internal product testing of Euro-Pro and competitor vacuums), Alex Porter (the senior chief engineer for performance and durability at Intertek Laboratories, which was commissioned by Euro-Pro to test the DC65 and NV650 vacuums), Jim Gould (Euro-Pro's carpet expert and the president and founder of the Floor Covering Institute), Mark Rosenzweig (Euro-Pro's CEO), and Mark Barrocas (Euro Pro's president, who is ultimately responsible for, among other things, Euro-Pro's quality and product reliability department).

## **B. ASTM Standards**

ASTM is an acronym for American Society of Testing and Materials. ASTM International is an entity that promulgates thousands of standards intended to improve performance in manufacturing, materials, products, processes, systems, and services. Two of these standards are at issue in this case: ASTM 655-13, which provides specifications for carpet samples used for vacuum cleaner testing (PX 17B and DX 12),<sup>2</sup> and ASTM F608-13, which is a protocol used to evaluate a vacuum's effectiveness at removing embedded dirt from carpets (PX 6 and DX 11).<sup>3</sup> Goldsmith and Medler are on the ASTM committee responsible for vacuum cleaners and the subcommittee that is responsible for ASTM F608.

### **1. ASTM 655**

ASTM 655 specifies four types of carpets to be used in testing: level loop, multi-level, plush, and frieze (formerly shag).<sup>4</sup> ASTM 655 specifies the pile height for each sample, but does not define low and high pile. Pile height does not necessarily correlate to carpet height, which depends on how the fibers lie, how dense they are, and if they are twisted. The four ASTM carpet types are:

- Level loop – pile height of .25" +/- .02" (PX 54/DX 77)
- Multi-level – pile height of .416" +/- .02" (PX 53/DX 78)

---

<sup>2</sup> The court will refer to Dyson and Euro-Pro's exhibits as PX\_\_ and DX\_\_, respectively.

<sup>3</sup> The number at the end of the ASTM standard number refers to the year that the standard was last revised. Thus, ASTM F608-13 indicates that this standard was last revised in 2013. (PX 6 at 1.)

<sup>4</sup> Gould (Euro-Pro's carpet expert) testified that shag and frieze are different carpet types with straight or twisted fibers, respectively. The court will nevertheless follow the parties' convention of referring to shag and frieze interchangeably.

- Plush – pile height of .5" +/- .02" (PX 56/DX 76)
- Shag/Frieze – pile height of .919" +/- .02" (PX 55/DX 75, which is frieze)

The four carpet types are not intended to replicate all of the types of carpet that currently exist. Instead, ASTM F608 testing on the four carpet types is meant to provide information about how vacuums will perform when used to clean the widely varying types of carpets most typically in consumers' homes.

## **2. Terminology in ASTM F608-13**

ASTM F608-13 outlines a standardized method to test the cleaning ability of a sample population of vacuums. Testing pursuant to ASTM F608-13 produces results that can be used to predict, to a specific level of certainty, how well other vacuums of that same model would clean carpet if they were sampled and tested in the same way.

ASTM F608-13 requires reporting of, among other things, the geometric mean of the amount of soil removed from the four carpet types. ASTM F608-12 at § 10.1.4. A geometric mean (also referred to as a “geomean”) is a type of average calculated by multiplying the numbers at issue and then taking the square root (for two numbers), the cube root (for three numbers), etc. In other words, the geometric mean is calculated using the  $n$ th root where  $n$  = sample size. *Id.* at § A3.3.9.3. In addition, ASTM F608-13 also requires reporting of “[t]he overall average(s), standard deviation(s), and 90% confidence results for all of the population sample tested.” *Id.* at § 10.2.

ASTM F608-13 also refers to confidence intervals. “A confidence interval is used when estimating an unknown parameter from sample data. The interval gives a range for the parameter, and a confidence level that the range covers the value.” David Freedman, Robert

Pisani & Roger Purves, *STATISTICS* at 385 (4th ed. 2007). A confidence limit refers to the upper and lower ranges of the confidence interval. David H. Kaye & David A. Freedman, *Reference Guide on Statistics*, in *REFERENCE MANUAL ON SCIENTIFIC EVIDENCE* at 284-85 (Federal Judicial Center, 3d ed. 2011). Within the upper and lower limits of the confidence interval, the geomean is at the center. ASTM F608-13 at § A3.1.2.

The term “standard deviation” is also used in ASTM F608-13. It illustrates how “a list of numbers spreads out around the average” by “measur[ing] the size of deviations from the average.” *STATISTICS* at 67. Assuming that the sample size is appropriate, one standard deviation has a 68% confidence level, while two standard deviations have a 95% confidence level. *Reference Guide on Statistics* at 244. “The 95% confidence level is the most popular” although “some authors use 99%, and 90% [the confidence level used in ASTM F608-13] is seen on occasion.” *Id.* at 245.

## **2. ASTM F608-13 Testing**

ASTM F608-13 is entitled “standard test method for evaluation of carpet embedded dirt removal effectiveness of household/commercial vacuum cleaners.” ASTM F608-13 defines “cleaning ability” as “the potential of a vacuum cleaner to remove dirt from a surface (sometimes referred to in the industry as *cleanability* . . .).” ASTM 608-13 at § 3.1.1 (emphasis in original). A “model” is “the designation of a group of vacuum cleaners having identical mechanical and electrical construction with only cosmetic or nonfunctional differences.” *Id.* at § 3.1.2. A “sample” is “a group of vacuum cleaners taken from a large collection of vacuum cleaners of one particular model which serves to provide information that may be used as a basis for making a decision concerning the larger collection.” *Id.* at § 6.1.8. The ASTM further specifies that “[a]

minimum of three units of the same model vacuum cleaner selected at random in accordance with good statistical practice shall constitute the population sample.” *Id.* at 7.1.

“To determine the best estimate of cleaning ability effectiveness for the population of the vacuum cleaner model being tested, the arithmetic mean of the cleaning ability rating of the sample from the population shall be established by testing it to a 90% confidence level within +/- 5% of the mean value of the cleaning ability rating.” *Id.* at § 7.1.1. Annex A3 to ASTM F608-13 provides an example as well as the “method of determining 90% confidence level.” *Id.* at § 7.1.2; *see also* ASTM F608-13 at § A3.1.6 (formula used to establish the upper and lower limits of the confidence interval “that will provide the level of confidence required to assert that the true population mean lies within [the] interval”).

With respect to vacuum cleaner settings used during testing, ASTM F608-13 provides that “[i]f various settings are provided, set the motor speed setting, suction regulation, nozzle height, or combination thereof as provided in the instruction manual for each type of carpet. Contact the manufacturer if no instructions are given, or if the instructions are unclear.” *Id.* at § 9.2.3.1.

ASTM F608-13 contains highly detailed specifications about testing procedures, including how to run the tests and how to clean the vacuum between tests (called conditioning). Briefly, the operator weighs the vacuum’s dirt receptacle to the nearest .10 g (.0035 oz.). *Id.* at § 9.2.2.1. She then prepares the carpet samples and test vacuum as specified in the ASTM, places a precise quantity of a mix of a test dirt mixture consisting of silica sand and talcum on the carpet, embeds the test dirt using a special tool, and attempts to move the vacuum at 1.8 feet per second for 40 seconds in a specified cleaning pattern while keeping the handle of the vacuum

31.5" from the floor surface. *Id.* at § 9.4; Attachment 1 to this opinion (a diagram specifying five sets of stroke patterns).

After performing the test, the operator weighs the dirt receptacle to the nearest .10 g (.0035 oz.) and subtracts the weight of the empty receptacle to obtain a number representing the amount of dirt picked up by the vacuum. *Id.* at § 9.4.15. This number is expressed as a percentage. *Id.* at § 9.4.18. The operator must perform three test runs, following a prescribed pattern, on all four carpet samples using the same test vacuum. *Id.* at § 9.4.19. She must then repeat this entire procedure using “[a] minimum of two additional test sample units of the same model . . . selected in accordance with the sampling statement of Section 7.” *Id.* at § 9.4.22. Between tests, the dirt receptacle must be cleaned to within 2 g (.07 oz.) of its original weight. *Id.* at § 9.4.

“The percent carpet-embedded dirt removal effectiveness for each individual test vacuum cleaner from the population sample for a given carpet is the average of three test runs meeting the repeatability statement in Section 11.” *Id.* at § 9.4.20 and Table 1 (values for repeatability and reproducibility).<sup>5</sup> Annex A3.3 contains a sample calculation and information on when further test runs need to be conducted.

---

<sup>5</sup> As a general rule, “[i]n statistics, reliability refers to reproducibility of results. A reliable measuring instrument returns consistent measurements. A scale, for example, is perfectly reliable if it reports the same weight for the same object time and again. It may not be accurate – it may always report a weight that is too high or one that is too low – but the perfectly reliable scale always reports the same weight for the same object.” *Reference Guide on Statistics*, at 227. In turn, repeatability measures a system’s consistency to achieve identical results across multiple tests. *See id.* ASTM F608-13 defines repeatability for “Single Operator and Laboratory; Multiday Testing” as “[t]he ability of a single analyst to repeat the test within a single laboratory.” ASTM F608-13 at § 11.5. It defines reproducibility for “Multiday Testing and Single Operator Within Multilaboratories” as “[t]he ability to repeat the test within multiple laboratories.” *Id.* at § 11.6.

“The percent carpet-embedded dirt removal effectiveness for the population of the vacuum cleaner model being tested is the arithmetic mean of geometric mean values of the percent carpet-embedded dirt removal effectiveness from a sample of the population meeting the requirements of the sampling statement . . . .” *Id.* at § 9.4.23. In other words, the percent carpet-embedded dirt removal effectiveness is the average of the geometric means obtained by making three cleaning passes per test vacuum over each of the four carpet types in the prescribed pattern.

With respect to confidence intervals, Annex A3 explains how to determine whether the upper and lower limits of a confidence interval meet the required 90% confidence level. *Id.* at § A3.1.6. This is calculated using the upper and lower limits of the confidence interval, the mean score of the sample taken from the population, the *t* statistic from Table A3.1, the standard deviation of the sample taken from the population, and the number of units tested.<sup>6</sup> *Id.*; *see also* § A3.1.3 (the “desired level of confidence” is 90%) and § A3.1.4 (formula to compute the mean and the standard deviation “of the individual scores of the sample taken from the population”). “[A] numerically smaller confidence interval may be obtained by using a larger number of test units, *n*, for the sample. Therefore, when the standard deviation, *s*, of the sample is large and the level of confidence is not reached after testing three units, a larger sample size, *n*, shall be used.” *Id.* at § A3.1.8.

---

<sup>6</sup> A *t* statistic is a constant (*i.e.*, a number that is not a variable) used to compute a confidence interval. *See Reference Guide on Statistics*, at 281-82 (“The *t*-statistic is the estimated value divided by its standard error”); *STATISTICS* at 488, 500 (discussing how to perform a *t*-test); *see also* ASTM F608-13 at § A3.1.5 (defining the *t*-statistic for ASTM vacuum cleanability testing); Table A3.1 (percentiles of the *t* distribution).



### C. The NV650 Vacuum and the Accompanying Manuals

According to Dyson, it first learned about the NV650 when Euro-Pro sent a letter dated May 7, 2014, advising Dyson that the NV650 would launch “in or about July of this year.” (DX 41.) Euro-Pro took this unusual step because it wanted Dyson to know that it believed that the NV650 made Dyson’s claim that its vacuums have “twice the suction” of other vacuums stale.<sup>7</sup> Suction is a component of cleaning. A high amount of suction can enhance cleaning performance but can also impede a vacuum’s ability to move on carpet by preventing the vacuum from maintaining good air flow. This latter issue arises with small or thin area rugs, certain high pile carpets, and high density carpets.<sup>8</sup>

Dyson’s DC65 vacuum does not require the user to select a setting when vacuuming carpet; it adjusts automatically. In contrast, the names of the settings and the corresponding instructions, handle nomenclature, and handle icons changed multiple times after the release of Euro-Pro’s NV650. Euro-Pro CEO Mark Rosenzweig testified that Euro-Pro was entitled to revise its product and manual as Euro-Pro deemed necessary and characterized the instructions as a “moving target.” The record contains three complete sets of instructional materials (manual,

---

<sup>7</sup> The speed of Dyson’s efforts to change its advertising about its “twice the suction” claim is at issue in a case pending in the United States District Court for the District of Massachusetts. *Euro-Pro Operating LLC v. Dyson, Inc.*, No. 14 C 13720-IT. This court previously denied Euro-Pro’s motion to dismiss, transfer, or stay this case in light of the Massachusetts case. (Dkt. 65.) Euro-Pro’s “unclean hands” argument, outlined in its post-evidentiary hearing submission, essentially duplicates the claims made in the Massachusetts case. Based on the court’s denial of Dyson’s motion for a preliminary injunction, it does not need to reach Euro-Pro’s “unclean hands” argument at this time.

<sup>8</sup> Carpet density is measured using the weight of the carpet in a specified area. Mohawk is an illustrative manufacturer of a newer style of dense carpet where the individual fibers are comprised of multiple strands of very thin fibers. The court will follow the parties’ convention of referring to high density carpet as “Mohawk” style carpet.

quick start guide, and hang tag) for NC650 series vacuums plus a fourth set of instructions comprised of a manual and quick start guide that Euro-Pro posted on its website in December 2014. (PX 7, PX 8, DX 30, DX 31.) The on-line materials are the most recent version of the instructions. This version of the instructions is not in boxes that are currently on store shelves or in approximately two to three months worth of vacuums that are waiting to be moved into stores.<sup>9</sup>

The mechanics of the settings on the NV650 vacuums did not change when the nomenclature and corresponding icons did. The court will adopt the parties' convention of referring to the two carpet settings as the "middle" and "upper" (or "third") settings to provide consistency despite Euro-Pro's changes to the nomenclature and icons over time as well as across the various models of vacuums in the NV650 series. In sum, the hard surface (lowest) and middle settings have the same amount of suction, which is greater than the amount of suction

---

<sup>9</sup> On February 2, 2015 (two weeks after the evidentiary hearing and shortly before closing arguments were scheduled to start), Euro-Pro filed a declaration from Euro-Pro President Mark Barrocas. In his declaration, Barrocas states that approximately two-thirds of Euro-Pro's sales of the NV650 are direct-to-consumer and not made through retail stores. In contrast, as noted by Dyson, during Barrocas' deposition, he testified that across Euro-Pro's "whole business it's less than 10 percent [who] would buy directly from us" so "over 90 percent would buy from a retail store or website." (Dyson Slide 111, citing Barrocas Dep. at 52:9-19). According to Barrocas, on February 2, 2015, Euro-Pro emailed the latest version of the instructions to the customers who purchased NV650 vacuums directly from Euro-Pro. Barrocas also represents that Euro-Pro will open boxes of NV650 series vacuums at its distribution centers, remove the "instruction booklet" and replace it with the current "instruction booklet." (Dkt. 92-1 at ¶ 5.) It thus appears that the existing iterations of the hang tag and quick start guide will remain (even though the on-line instructions include a revised version of the quick start guide). There are an unknown number of NV650 vacuums purchased (or sitting on shelves waiting to be purchased) from retailers such as Amazon and Bed Bath and Beyond. These vacuums were packaged in boxes containing the pre-December 2014 product information. Thus, the marketplace has a mix of outdated and current instructions.

associated with the upper setting. The hard surface setting disengages the brush roller, while the middle and upper settings do not. The hard surface setting is not implicated in this dispute.

Prior to the December 2014 revision to the NV650 manual, the instructions about carpet settings referred to low and high pile in varying ways and did not specify that the middle and upper settings had differing amounts of suction. The December 2014 instructions state that the middle setting (which has the highest suction of the two carpet settings) is the default carpet setting and should be used unless it is difficult to push and pull the vacuum. The December 2014 instructions further provide that the upper setting is best for high pile or thick carpets, area rugs, and specialty carpets if the vacuum is difficult to push or pull due to the high suction of the middle setting. In addition, the December 2014 instructions state, “NOTE: For deep cleaning per ASTM 608 (embedded dirt in carpets), please set to CARPET/LOW PILE.” (DX 30.)

**D. The Appropriate NV650 Setting to Use for Shag/Frieze**

The parties do not dispute that suction is tied – to a certain degree – to cleaning ability. For present purposes, the court will proceed based on the premise that lowering the amount of suction negatively affects a vacuum’s cleaning performance.

During the evidentiary hearing, the parties spent a significant amount of time presenting evidence about the pile height of shag/frieze. In the complaint in the Massachusetts case, which Euro-Pro filed on September 26, 2014, Euro-Pro took the position that shag was a high pile carpet. *See* PX 23 (Boston complaint) at ¶ 31 (“if that same consumer were to use the high suction vacuum on a high pile carpet (*e.g.*, shag), that vacuum would be very difficult to push and pull”). Instruction manuals for other models of Euro-Pro Shark vacuums describe shag as a

high pile carpet. *See* PX 18 (Shark Mini Upright Owner's Manual) and PX 19 (Shark Bagless Upright Vacuum Manual).

Dyson's competitive intelligence manager, Leonore Kaplan, testified that she believed that the upper setting on an NV650 was proper when testing frieze pursuant to ASTM F608 because the frieze sample is more than twice the height of the other carpet types, shag/frieze carpet is generally regarded as high pile, and the shag/frieze sample was meant to show a vacuum's cleaning performance on high pile carpets. Dyson's president, Edward Culley, opined that instructions directing consumers to use the upper setting on high pile carpets required Intertek (Euro-Pro's third-party testing laboratory) to use the NV650's upper setting when testing frieze. He further testified that he believed that the disclaimers in Euro-Pro's advertisements (for the ads that had disclaimers) indicating that ASTM F608 testing was performed using low pile/carpet mode were misleading because ASTM testing on frieze should have been conducted using the upper setting since frieze is a high pile carpet.

In addition, Goldsmith (the head of IBR, Dyson's third-party testing laboratory) testified about IBR's testing of Euro-Pro's NV650 and Dyson's DC65 models. Goldsmith is personally involved in all tests performed in her lab. Goldsmith believed that it was appropriate to use the upper setting on the NV650 for shag/frieze when conducting ASTM F608 testing because shag and frieze are high pile carpets.

Euro-Pro's witnesses testified that it was obvious – at all times, not just after the December 2014 revisions to the instruction manual added a reference to the ability to push and pull – that the middle setting should be used for all carpets unless the user experienced difficulty pushing or pulling the vacuum. For example, Rosenzweig testified that the language in the

various sets of pre-December 2014 instructions (which contain varying wording relating to pile height and carpet thickness and neither refer to suction nor ask users to evaluate if the vacuum is difficult to push or pull) showed that Euro-Pro consistently intended the middle setting to be used for carpet unless the vacuum was difficult to push or pull.

The record also contains an email dated July 6, 2014, sent by Dan Bilger (unknown job title at Euro-Pro) to, among others, Medler and Barrocas about the setting options. In his email, Bilger stated that “Mark R’s [Rosenzweig’s] hypothesis is that we [Euro-Pro] want consumers to always use the low suction setting [*i.e.*, the upper setting] in upright mode [when vacuuming carpet].”<sup>10</sup> (PX 25.) Bilger “question[ed] this” because data showed that cleanability was higher using the middle setting and the NV650 had better push/pull in this setting than prior Euro-Pro vacuums. (*Id.*) The email also stated that “Mark R’s hypothesis [was] that we should use markings of “BARE FLOOR/LIFT AWAY/CARPET” but Bilger thought that consumers would be confused by a “lift away” setting. (*Id.*)

#### **E. Third-Party Testing**

Both Dyson and Euro-Pro have facilities where they conduct internal product testing. The parties ran multiple internal tests on their own and each other’s vacuums. Witnesses from both sides testified (and were cross-examined) extensively about these internal tests. In addition, Dyson commissioned IBR to perform third-party testing, while Euro-Pro commissioned Intertek to perform third-party testing.

---

<sup>10</sup> As shown in Euro-Pro’s various infomercials for the NV650, those vacuums can be used in three different modes: upright mode (“lift away” center portion attached to the vacuum), canister mode (“lift away” center portion detached from the vacuum and resting in a wheeled base), and a third mode where the user temporarily detaches the “lift away” center portion and leaves it on the floor to allow the wand and brush head to get under furniture or into tight spots.

Not all of IBR's testing met the 90% confidence level specified in ASTM F608-13. Goldsmith testified that the tests that did not meet the confidence level still contained useful information about cleaning performance because "[a]ny data taken under good conditions is useful." (Tr. Vol. II at 265:11-15.) Goldsmith agreed that if IBR was testing the NV650 today using the current on-line version of the manual, it would ascertain if the vacuum was hard to push or pull on the four test carpet samples before deciding what setting to use. Nevertheless, she testified that shag and frieze are high pile carpets and noted that the on-line instructions still mention pile height. Thus, she concluded that the instructions in the most recently revised on-line version of the manual were inconsistent.

IBR's November 10, 2014 test of the NV650 states that the results satisfied the 90% confidence level. This test combined the level loop, multi-level, and plush results from IBR's November 7, 2014 tests using the middle setting with a November 10, 2014 test of frieze using the upper setting in place of the previous frieze test using the middle setting. However, the vacuum used on November 10, 2014, when testing frieze using the upper setting, experienced brush roller problems. Specifically, that vacuum stopped once (and presumably needed to be turned back on manually). It also cut off and on once (*i.e.*, stopped and then restarted itself).

Alex Porter, Intertek's senior chief engineer for performance and durability, testified about Intertek's testing. He was not personally involved in Intertek's testing of the NV650 or the DC65. According to Porter, Intertek did not know what setting(s) to use when testing the NV650 because there was a discrepancy between the information on the handle and the information in the manual that was available on the Internet. Thus, Intertek emailed Euro-Pro to obtain clarification, and was told to use the middle setting. Porter agreed, however, that ASTM

F608 instructs testers to consult the manual in the box to determine which settings to use. He further agreed that if the instructions in the manual are unclear, there is no reason to go on-line because ASTM F608 specifies that in that instance, the tester should call the manufacturer. Porter also agreed, on cross-examination, that the individual conducting the testing (Steven Reese) emailed Euro-Pro to ask what setting to use on carpet because Intertek's population of test vacuums had inconsistent icons/wording on the handles for the middle and upper settings.

**F. Euro-Pro's Claims**

**1. Claims Made on Vacuum Packaging and in Advertisements**

The NV650 boxes contain the claim:

MORE SUCTION  
&  
CLEANS CARPET BETTER  
vs. Dyson's Best Vacuum  
Proven by Independent Lab Testing

(PX 57.)<sup>11</sup>

Euro-Pro's website, as of January 2015, contained multiple claims about the NV650's ability to clean carpet better than Dyson's DC65. There are asterisks at the end of the claims, which direct the reader's attention to small-font footnotes that state that the claims are based on "ASTM F608 in carpet/low pile mode." (PX14.) Euro-Pro promotes the NV650 using an infomercial that contains cleaning claims. The long-form infomercials began when Euro-Pro launched the NV650 in July 2014. Rosenzweig (called "Rosen" in the video) and actress Amy

---

<sup>11</sup> Dyson's claim that the DC65 has "twice the suction" of all other vacuums is not at issue in this case. Nor is Euro-Pro's claim that the NV650 has "more suction" than "Dyson's Best Vacuum."

Motta tout the NV650 in many ways, including the following at approximately the nine-minute mark:

*[Rosenzweig and Motta stand in the living room of a home while Rosenzweig holds a NV650 vacuum]*

MARK: Amy, there is [sic] so much reasons why Shark receives more 5-star ratings than any other vacuum brand.

*[Showing graphic superimposed on Rozensweig and Motta stating, "Shark. More 5-star online ratings ★★★★★ than any other vacuum brand" in a very large font and "Based on aggregate of online reviews at major retailers of leading uprights per NPD over \$149.99, 6/2014" in a small font across bottom]*

But most importantly, it's because it deep cleans carpets so well.

*[Showing graphic superimposed on Rozensweig and Motta stating, "Incredible deep down carpet cleaning" as camera zooms in on Rosenzweig and Motta; graphic disappears as Rosenzweig finishes his sentence]*

In fact, my new Rotator Powered Lift-Away has more suction . . .

*[Graphic superimposed on Rozensweig and Motta appears that states, "Shark. Deep cleans carpets better than Dyson's Best Vacuum" in a very large font and "Shark NV650 vs. Dyson's DC65 based on ASTM F558 measured at the hose & ASTM F608 embedded dirt (NV650 in carpet/low pile mode)" in a small font across bottom]*

. . . and deep cleans carpets better than Dyson's best vacuum.

*[Graphic disappears, switch to different angle of Rosenzweig and Motta]*

AMY: That's a bold statement, Mark.

*[Switch to different angle of Rosenzweig and Motta, camera zooms in on Rosenzweig]*

MARK: True, but I have the independent lab tests to back it up.



*[Shows black and white footage of man looking down. Small font across bottom states, “Dramatization footage of ASTM F608 embedded dirt (NV650 in carpet/low pile mode) Shark® NV650 vs. Dyson® DC65.” This footer continues to stay on the screen until removed as noted below]*

We asked independent testing facilities . . .

*[Zooms on man’s hand sprinkling dirt from a shaker onto a piece of carpet held onto a base by a frame. Graphic appears stating “Independent Lab Tests Prove” as man continues to sprinkle dirt]*

. . . to conduct the one and only industry-recognized test of carpet cleaning . . .

*[Showing roller device moving across carpet sample, graphics and small font footer across bottom remain. Switch to view of room showing the man testing a vacuum that appears to be a DC65 with two NV650 vacuums nearby. Graphic appears stating “Independent Lab Tests Prove” as man continues to vacuum]*

. . . and we went head to head with Dyson’s best.

*[Showing close-up color footage of what appears to be a NV650 vacuum being tested on a hard floor surface. Switch to closeup of the ball and cleaning head area of a vacuum with Dyson’s DC65 logo visible that is being used to vacuum a carpet sample. Switch back to prior view of the mock test room showing the man vacuuming with the DC65 with two NV650s nearby]*

Both vacuums were tested on four of the most commonly owned carpet types in America . . . .

*[Switch back to closeup view of an NV650 vacuuming a test carpet panel]*

And when all was said and done . . .

*[Showing graphic stating “Amount of Embedded Dirt Removed” next to images of a DC65 labeled “Dyson DC65” and an image of an NV650 labeled “Shark NV650 ” as “Dramatization of...” footer in small font disappears]*

. . . the independent lab tests proved . . .

*[Showing bar chart with the two vacuums in front of their respective bars; Dyson's bar states "37g" and the NV650's bar states "30g." Small font footer states "Shark NV650® vs. Dyson® DC65 ASTM F608 in carpet/low pile mode (embedded dirt in multi-level carpet sample.)"]<sup>12</sup>*

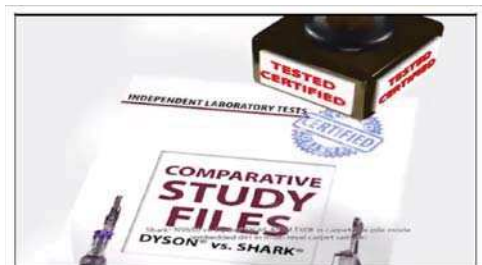
. . . without question that our new Shark Rotator Powered Lift-Away deep cleans carpet better . . .

*[camera angle on graphic of bar chart shifts and "Shark deep cleans carpets BETTER than \$600 Dyson®" appears in large print. As Rosenzweig finishes his sentence, the word "better" flashes between the original large font size and a larger font size]*

than Dyson's best \$600 vacuum.

(PX 11A; 11B at 10:11-11:5); *see* also PX 1 and 1A ("independent lab tests prove that Shark's new Powered Lift-Away cleans carpets better than a \$600 Dyson"); PX 11 ("BETTER deep cleaning than \$600 Dyson").

The infomercials state clearly that Euro-Pro has tests that support its claims. For example, one of the versions of the short-form infomercial contains the following graphic:



(PX 4.)

---

<sup>12</sup> Euro-Pro has represented that this bar chart does not appear in the current version of the infomercial and that it has ceased using the bar chart in its advertising. The court has previously voiced its understanding that the bar chart is not at issue in this case and told Dyson to advise the court if it wishes to pursue any claims based on the bar chart.

Shark also advertised in *People* magazine's November 17, 2014, issue. That advertisement claimed, among other things, that the NV650 had "MORE Suction Power & Cleaner Carpets vs. Dyson's Best Vacuum Proven by Independent lab testing!" (PX 5.) The small font footer associated with the cleaning claim states, "[b]ased on NV650 vs. Dyson DC65 . . . ASTM F608 (embedded dirt in carpet)." The *People* advertisement does not specify the setting used for testing.

In addition, Euro-Pro runs banner advertisements on the Internet. Those advertisements do not generally include the disclaimer about the setting used for testing. According to Euro-Pro, this is due to space limitations. However, Euro-Pro did not present evidence suggesting that if it changed the graphic in the banner advertisements, it would be unable to include a disclaimer.

## **2. The Launch of the NV650 Vacuum**

The NV650 vacuum (the first of the series to be sold) launched on July 8, 2014. The record does not include dates, but it appears that Euro-Pro sold the NV650 directly to consumers before it offered its vacuums for sale elsewhere online or in brick and mortar stores. Dyson asserts that Euro-Pro did not have its third-party test results back when Euro-Pro started selling the NV650.

The dates that Euro-Pro received Intertek testing are as follows:

- Intertek sent Medler Report No. 101690840CRT-002 via a letter dated July 11, 2014. This report covers cleanability testing on the DC65 conducted by Intertek that was commissioned by Euro-Pro. (PX 17E & DX 6.) Euro-Pro discarded the July 11th testing results. It represents that it did so due to chain of custody issues with the sample DC65 vacuums. Specifically, Euro-Pro asserts that Intertek had two sets of DC65 vacuums: the ones it intended to test plus other sample DC65 vacuums with an uncertain provenance. According to Euro-Pro, Intertek inadvertently tested the wrong set of vacuums. *See* Medler Dec., Dkt. 58-2, at 3- 4.

- Intertek retested the DC65 vacuums using a new population of test vacuums. These test results are in the amended version of Intertek Report No. 101690840CRT-002 (PX 63 & DX 9), which is dated August 12, 2014. The “change summary” on the August 12, 2014 report that details the differences between the first version (July 11, 2013) and the amended version states that Intertek replaced the data “to correspond with new samples being tested.” (*Id.* at 10.)
- Intertek sent Medler Report No. 1016980840CRT-002B via a letter dated July 17, 2014. This report covers cleanability testing on the NV650 conducted by Intertek that was commissioned by Euro-Pro. (PX 17C & DX 7.)
- Intertek sent Medler Report No. 101690840CRT-002D via a letter dated July 24, 2014. This report covers additional cleanability testing on the NV651 conducted by Intertek that was commissioned by Euro-Pro. (PX 17D & DX 8.)

Barrocas testified that the televised infomercial campaign began in September 2014.

Rosenzweig testified that when the NV650 launched on July 8, 2014, he did not know if Euro-Pro had independent lab tests supporting the claim of cleaning superiority made in the infomercials and on the boxes containing NV650 vacuums. Rosenzweig’s team, however, had been was tasked with designing a vacuum that would outclean Dyson’s DC65. Although Euro-Pro had not received Intertek’s reports when Rosenzweig filmed the infomercial earlier in the summer of 2014, Rosenzweig believed that his team would have ensured that Euro-Pro’s claims were supported by appropriate testing when the infomercial was released and the NV650 vacuums – in their boxes with cleaning superiority claims on the top of the box as well as three of the four sides – appeared on store shelves.

## **II. LEGAL STANDARD**

“A preliminary injunction is an extraordinary remedy intended to preserve the status quo until the merits of a case may be resolved.” *Ind. Civil Liberties Union v. O’Bannon*, 259 F.3d 766 (7th Cir. 2001). To obtain a preliminary injunction, Dyson must show that it has: “(1) no

adequate remedy at law and will suffer irreparable harm if a preliminary injunction is denied and (2) some likelihood of success on the merits.” *Ezell v. City of Chicago*, 651 F.3d 684, 694 (7th Cir. 2011); *Triumph Packaging Grp. v. Ward*, 834 F. Supp. 2d 796, 805 n.7 (N.D. Ill. 2011) (to obtain a preliminary injunction, a plaintiff “must show that it is “reasonably likely to succeed on the merits”) (collecting cases). If it does so, the court must consider whether the injunction is in the public interest. *Stuller, Inc. v. Steak N Shake Enter., Inc.*, 695 F.3d 676, 679 (7th Cir. 2012).

The court “weighs the factors against one another, assessing whether the balance of harms favors the moving party or whether the harm to the nonmoving party or the public is sufficiently weighty that the injunction should be denied.” *Ezell*, 651 F.3d at 694. “These considerations are interdependent: the greater the likelihood of success on the merits, the less net harm the injunction must prevent in order for preliminary relief to be warranted.” *Judge v. Quinn*, 612 F.3d 537, 546 (7th Cir. 2010); *Ill. League of Advocates for Developmentally Disabled v. Ill. Dep’t of Human Services*, — F. Supp. 2d —, No. 13 C 1300, 2014 WL 3605633, at \*15 (N.D. Ill. July 21, 2014).

### **III. LEGAL STANDARD FOR DYSON’S LANHAM ACT AND RELATED STATE LAW CLAIMS**

Section 43(a) of the the Lanham Act allows civil suits to obtain damages to be filed against any person who, “in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of his or her or another person’s goods.” 15 U.S.C. § 1125(a)(1)(B). Dyson contends that Euro-Pro’s advertising violates the Lanham Act because it is false and misleading.

A claim in an advertisement “in the form ‘tests show x’” is known as an establishment claim. *BASF Corp. v. Old World Trading Co., Inc.*, 41 F.3d 1081, 1090 (7th Cir. 1994). Dyson

argues that Euro-Pro's claims about cleaning superiority were false, misleading, and material, and specifically states that these contentions support its establishment claim.<sup>13</sup> First, Dyson contends that the Intertek tests commissioned by Euro-Pro do not substantiate Euro-Pro's claims because (1) Intertek did not properly test the NV650 pursuant to ASTM F608-13 since Intertek used the middle setting when testing all four carpet types and (2) IBR's test results show that Intertek's test results are unreliable. Second, Dyson asserts that when Euro-Pro launched the NV650, Euro-Pro's cleaning superiority claims were literally false given that Euro-Pro had not yet received Intertek's reports for both the NV650 and the DC65.

Dyson bears the burden of showing that "the cited tests do not, in fact, establish the proposition claimed." *Id.*; *Avon Hi-Life, Inc. v. Lauren Agrisystems, Ltd.*, No. 13-CV-36-BBC, 2013 WL 5953133, at \*9 (W.D. Wis. Mar 25, 2013) ("A plaintiff may show that [an establishment] claim is false by showing that the cited tests do not prove the proposition."). If a plaintiff establishes that "a statement is 'literally false,' it need not show actual consumer confusion." *Avon Hi-Life, Inc.*, 2013 WL 5953133, at \*8 (quoting *Hot Wax, Inc.*, 191 F.3d at 819); *see also Schering-Plough Healthcare Prod., Inc. v. Schwarz Pharma, Inc.*, 586 F.3d 500, 512-13 (7th Cir. 2009) (discussing literal falsity under the Lanham Act).

A plaintiff can show that a study supporting an advertising claim is literally false by

---

<sup>13</sup> Euro-Pro argues that Dyson's complaint does not state a claim for which relief may be granted because Dyson did not adequately plead its current establishment claim theory. (Dkt. 84.) The court declines to consider what is, in essence, a request to dismiss Dyson's complaint pursuant to Fed. R. Civ. P. 12(b)(6), raised briefly in a submission on damages. Moreover, it is improper to bury this kind of argument in a post-hearing brief that was supposed to address the standard of review for establishment claims. In any event, Euro-Pro recently filed a motion to dismiss that includes an argument that Dyson failed to plead an establishment claim. (Dkt. 103). The court will not address the sufficiency of Dyson's establishment claim in connection with Dyson's motion for a preliminary injunction.

pointing to evidence demonstrating that “(1) the study cited does not establish what the advertisement says it does or (2) the cited study’s methods or findings are not acceptable to the relevant scientific community.” *Riddell, Inc. v. Schutt Sports, Inc.*, 724 F. Supp. 2d 963, 973 (W.D. Wis. 2010). In contrast, if a plaintiff shows that a challenged statement “is ‘literally true or ambiguous’ but implicitly conveys a false impression or is ‘misleading in context or likely to deceive consumers, it must produce evidence of such confusion.” *Avon Hi-Life, Inc.*, 2013 WL 5953133, at \*8 (quoting *Hot Wax, Inc.*, 191 F.3d at 819).

The court evaluates Dyson’s claims based on the Illinois Uniform Deceptive Trade Practices Act (Count II) and Illinois unfair competition law (Count III) using the same standard that governs Lanham Act claims. *Dyson, Inc. v. Bissell Homecare, Inc.*, 951 F. Supp. 2d 1009, 1028-29 (N.D. Ill. 2013) (collecting cases).

#### IV. DISCUSSION

The following chart summarizes the third-party testing commissioned by Dyson and Euro-Pro from IBR and Intertek, respectively, and serves as a guide to the discussion of the various tests below:

<b>Date/Ex.</b>	<b>Dyson Relies</b>	<b>Euro-Pro Relies</b>	<b>Lab/ Vacuums</b>	<b>90% CI Overall?</b>	<b>Setting</b>	<b>Source of Samples</b>
3/28/2014 DX 81	No	No	IBR 3 DC65s	No	Auto	Dyson
7/11/2014 DX 6	No	No	Intertek 3 DC65s	Yes	Auto	“Supplied by Intertek”; test discarded due to chain of custody issue with test vacuums
7/17/2014 DX 7	No	Yes	Intertek 3 NV650s	Yes	Middle	“Supplied by client”

7/24/2014 DX 8	No	Yes	Intertek 3 NV651s	Yes	Middle	“Supplied by client”
8/12/14 DX 9 (“amends” 7/11/2014 tests)	No	Yes	Intertek 3 DC65s	Yes	Auto	“Supplied by Intertek”
9/9/2014 PX 47	Yes	Yes	IBR 3 DC65s	Yes	Auto	Dyson
9/10/2014 PX 48 (underlying logbook is DX 86 and prior versions are DX 109 & DX 110)	Yes	No	IBR 3 NV651s	Yes	Middle	DX 86 – Dyson  PX 48 – “Euro-Pro Chino CA Distr”  DX 109 – Dyson  DX 110 – Dyson
10/17/14 PX 49	No	No	IBR 5 NV652s	No	Middle	Bed Bath & Beyond store
11/7/2014 PX 50	No	Yes	IBR 3 NV652s	Yes	Middle	Amazon
11/10/14 PX 51	Yes	No	IBR 3 NV652s	Yes (but brush roller issue on frieze)	Upper for frieze & 11/7/2014 results using middle for other carpet types	Amazon
11/21/14 PX 52	No	No	IBR 5 NV651s	No	Upper for frieze, middle for other carpet types.	Amazon
12/18/14 DX 83	No	No	IBR 3 DC65s	Yes (but uses different carpet panels than used for NV650 series testing)	Auto	Unknown

Because the parties raise numerous arguments, the court begins with a brief overview of the discussion below. With respect to Dyson’s likelihood of success on its establishment and literal falsity claims, first, the court will consider only third-party testing, not the parties’ internal testing. Second, with respect to the array of conflicting third-party test results from Intertek (Euro-Pro’s third-party lab) and IBR (Dyson’s third-party lab), the court excludes or considers



the use of test reports as follows:

1. Third-party testing that fails to meet the 90% confidence level specified by ASTM F608-13 will be excluded as not compliant with the ASTM's requirements;
2. Euro-Pro's motion to strike IBR's September 10, 2014 test report due to Dyson's failure to produce draft versions of that report is denied. For the purposes of Dyson's motion for a preliminary injunction, however, the test will not be given any weight because Dyson contends that it is an expert report, which means it cannot also be an independent laboratory report;
3. Euro-Pro's motion to strike the rest of IBR's test reports and all of Goldsmith's testimony is denied;
4. IBR's November 10, 2014 test report that includes testing on frieze using a NV652 that experienced brush roller problems will be excluded; and
5. The evidence about the settings used by Intertek when testing the NV650 on frieze does not sufficiently establish that Dyson is likely to prevail on the merits.

Third, based on the more limited universe of third-party testing that remains, the court finds that the test results do not show that Dyson has a sufficient likelihood of success on the merits. Fourth, based on the present record, the court cannot determine if Intertek was, in fact, an "independent" testing facility. Setting that issue aside, when Euro-Pro launched the NV650 on July 8, 2014, its representation that independent laboratory testing supported its cleaning superiority claim was false because Intertek's July 11, 2014 testing of the DC65 was discarded due to chain of custody issues, Intertek sent test reports for the NV650 to Euro-Pro on July 17 and 24, 2014, and Intertek completed its testing of the DC65 on August 12, 2014. Thus, as of July 8, 2014, Euro-Pro did not have third-party testing that supported its claim that the NV650 deep cleans carpets better than the DC65. Although Dyson may ultimately be entitled to damages for the period of time in which Euro-Pro's claim was false, it is not entitled to injunctive relief based on a wrong that occurred in the past. Finally, the public interest and the

balance of the harms do not support a grant of injunctive relief.

**A. The ASTM Cleanability Testing Presented by the Parties**

**1. Internal vs. Third-Party Testing**

The parties conducted internal and third-party testing of each other's as well as their own vacuums.<sup>14</sup> During the evidentiary hearing, the parties took the position that internal testing results were relevant to Dyson's likelihood of success on the merits and used various internal tests to attack various third-party tests. Multiple witnesses testified about the internal tests, characterized aspects of those tests as reliable or questionable (depending on the witness on the stand), and opined about the light, if any, that the internal tests shone on the third-party tests.

Ultimately, however, this case is about Euro-Pro's claim of cleaning superiority based on third-party testing that Euro-Pro asserts was conducted properly pursuant to ASTM F608-13. ASTM F608-13 contains highly detailed specifications about numerous aspects of vacuum cleanability testing. Neither side claimed that the other side's third-party lab was unqualified to perform testing pursuant to the standard (although Euro-Pro criticizes IBR due to what Euro-Pro characterizes as an inordinate number of tests that did not meet the 90% confidence level).<sup>15</sup>

---

<sup>14</sup> The court will refer to Intertek and IBR as "third-party" testing facilities because the record is not sufficiently developed to determine if both of these so-called "independent" laboratories were, in fact, independent and free from bias.

<sup>15</sup> Euro-Pro argues that its internal tests show that meeting ASTM F608's 90% confidence level is "standard and readily attainable." It stresses that multiple IBR tests failed to meet the required confidence level and argues that all of IBR's testing should, therefore, be stricken as inherently unreliable. (Dkt. 100 at 2.) The court declines to strike all of IBR's tests on this ground based on the present record, which does not allow it to conduct an apples-to-apples comparison of Euro-Pro's internal testing with IBR's testing or understand precisely why specific IBR tests failed to meet the 90% confidence level. Moreover, the court declines to reject tests that the parties (at least for present purposes) agree were conducted by a qualified lab. This is a subject for expert testimony, not conjecture.

Similarly, neither side claimed that there was any reason to believe that the other side's lab was unable to run proper tests following ASTM F608-13's protocols. Finally, neither side (perhaps due to time constraints caused by the expedited discovery that preceded the preliminary injunction hearing) presented an expert to opine about what, if anything, the internal tests showed about the external tests.<sup>16</sup>

Given this, the parties have not, at least at the present time, convinced the court that internal testing is relevant to whether the third-party test results from Intertek and IBR are valid. The court also finds that the internal tests are unpersuasive given the inherent bias flowing from Euro-Pro's and Dyson's motivation to have their respective vacuums outperform the competitor's vacuum. For the purposes of Dyson's motion for a preliminary injunction, the court will, therefore, limit its consideration to Intertek's and IBR's tests of Euro-Pro's NV650 and Dyson's DC65 listed in the chart above.

## **2. Which Third-Party Tests Should be Considered?**

As detailed above, Intertek conducted a total of four tests at the behest of Euro-Pro (two for the NV650 and two for the DC65). Dyson commissioned IBR to perform a total of eight tests (five for the NV650 and three for the DC65).<sup>17</sup>

---

<sup>16</sup> Goldsmith testified as an expert in ASTM F608 testing. She focused, however, on whether the tests conducted by IBR complied with ASTM F608. She did not analyze the validity of IBR's testing based on an assessment of the reliability of internal testing conducted by Dyson or Euro-Pro.

<sup>17</sup> The court will not discuss specific test results throughout this opinion as even though the parties have filed certain test reports on the public docket, they have represented that the test results are confidential. For example, Euro-Pro attached test results to its motion to strike (Dkt. 87-7 and 87-8) that are marked "highly confidential outside attorneys' eyes only." It also submitted a summary of test results that includes geomeans. (Dkt. 102 at Ex. E.) Dyson has also filed IBR test results, all of which are marked as confidential. *See* Dkt. 10-7. Since both sides

**a. Geometric Mean vs. Confidence Interval**

As discussed above, in the context of ASTM F608-13 vacuum testing, the geometric mean, or geomean, is a type of average that is calculated based on soil removal test results for a sample vacuum population consisting of at least 3 units. The geomean is in the center of the upper and lower ranges of a confidence interval, and these ranges are also calculated using the test data. ASTM F608-13's 90% confidence limit reflects a 90% probability that if other vacuums of that same model were tested in the same way, the results would fall within the upper and lower ranges of the confidence interval. *See* ASTM F608-13 at § A3.1; STATISTICS at 381. Geomeans are important in this case because Euro-Pro uses them to support its claim of cleaning superiority. If Euro-Pro's use of geomeans is inappropriate, its advertising based on those geomeans may be misleading or inaccurate.

Dyson and Euro-Pro, through Goldsmith and Medler, respectively, are represented on the committee responsible for drafting ASTM F608. In addition, Porter testified that Intertek is represented on that committee. Marketing materials for Euro-Pro and Dyson show that both sides use geomeans to support various superiority claims. During the evidentiary hearing, the parties' presentations centered on the overall geomeans for each set of tests that were conducted.<sup>18</sup> The parties appear to be contending that the geomeans are, in essence, scores for the type of vacuum at issue and that these scores can be numerically ranked to show each type of

---

have filed test reports, it is unclear if the test reports are, in fact, confidential.

<sup>18</sup> The parties agree that the geomean calculated using the combined results for the entire test vacuum population on all four carpet types must satisfy the 90% confidence requirement. ASTM F608-13 does not require each individual vacuum's test results on the four carpet types to satisfy the 90% confidence requirement.

vacuums' relative ability to clean carpet. Indeed, Euro-Pro explicitly refers to the geomean as a "geomean score." (Dkt. 87 at 9.)

This is consistent with ASTM F608-13, which provides that the geomean "may be used as the best estimate of the cleaning ability rating for the population mean" across the four types of test carpets. ASTM F608-13 at §§ A3.2.8, A3.3.8.2, A3.3.10.2. Critically, however, ASTM F608-13 simultaneously acknowledges that the predictive power of a geomean is limited to estimating, to a 90% degree of confidence, that if other vacuums that are the same model were tested, the geomeans associated with that hypothetical additional testing would fall within the upper and lower limits of the confidence interval that surround the geomean for the test sample. *See id.* at § A3. Thus, ASTM F608-13 recognizes that if testing on a specific sample population produces a geomean of X, 100% of vacuums that are the same model will not necessarily have a geomean of X if they were tested.

Moreover, the methodology in ASTM F608-13 does not necessarily produce geomeans that are equally predictive. Consider hypothetical one, where three brand/model Y vacuums are tested, the geomean is 26, and the upper and lower ranges of the confidence limit are 24 to 28 with a 90% confidence interval. In hypothetical two, fifteen brand/model Z vacuums are tested, the geomean is also 26, but the upper and lower confidence limits are 25.8 and 26.2 with a 90% confidence interval. The results from hypothetical two are more precise and are a better predictor of how other vacuums in the marketplace would perform if they were tested. *See generally* STATISTICS, at 381-91. In addition, in hypothetical two, the upper and lower ranges of the confidence limit are very close to the geomean. Thus, hypothetical two's geomean could be a reasonable shorthand way of expressing the predictive power that the data in that

hypothetical provides. In contrast, in hypothetical one, the upper and lower ranges are broader. Thus, the geomean in hypothetical one is a less reliable indicator of how other vacuums would perform if they were to be sampled and tested.

These simplified hypotheticals illustrate a fundamental problem with the parties' submissions: a comparison of geomeans – stripped of the accompanying upper and lower ranges of the confidence limit and the confidence interval at issue – does not necessarily tell the full story about whether a manufacturer's advertising claim is true or false. Despite its concerns about the parties' focus on geomeans, however, the court must proceed based on the current record, which contains multiple test results from both Intertek and IBR. The parties should address this concern (likely with the assistance of statistics experts) as they proceed with discovery.

**b. Do the Third-Party Test Results Comply with ASTM F608-13?**

The court begins by considering whether the present record shows that each test complied with ASTM F608-13. *See Groupe SEB USA, Inc. v. Euro-Pro Operating LLC*, 774 F.3d 192, 203 (3d Cir. 2014) (finding that defendant's claim that its iron delivered more powerful steam was unsupported because its testing did not use the measurements specified by the applicable industry standard). For the following reasons, the court will exclude (for present purposes): (1) any test that does not meet the ASTM's 90% confidence interval and (2) the November 10, 2014 IBR testing that included data from the NV652 vacuum with brush roller issues. In addition, Euro-Pro's motion to strike all of IBR's testing – including IBR's September 10, 2014 IBR testing of NV651 vacuums – and to strike Goldsmith's testimony is denied. Finally, the court declines Dyson's invitation to reject all of Intertek's NV650 tests because

those tests were performed using the middle setting on all four ASTM carpet types.

**i. External Testing – Failure to Meet 90% Confidence Interval**

Section 7.1.1 of ASTM F608-13 specifies a 90% confidence interval. When the 90% confidence interval is not met, additional units must be tested. *See* ASTM F608-13, Annex 3 at § A3.1.8; Fig. A3.1 (flowchart for how to perform testing that states, among other things, that if the confidence interval is not met, “[s]elect additional vacuum cleaner and add to the population sample”); § A3.2.7 (if the confidence interval is not met, “an additional unit from the population shall be selected and tested, and the computations of A3.2.3-A3.2.7 repeated”); *see also* Tr. Vol. II at 234:10-12 (“Q: And what happens under the standard if the results do not fall within the 90 percent confidence interval? A: [Goldsmith]: It asks you to continue to draw samples.”).

The parties agree that the ASTM’s specifications must be strictly followed. Intertek’s tests met the 90% confidence interval, but not all of IBR’s tests did. Dyson is bound (at least for the purposes of its motion for a preliminary injunction) by the tests that it commissioned from IBR.<sup>19</sup> Thus, in connection with Dyson’s motion for a preliminary injunction, the court will not

---

<sup>19</sup> To the extent that Dyson claims that it could not test more vacuums due to difficulty obtaining additional NV650 units, the court finds that Kaplan’s testimony about the dearth of vacuums for testing is unconvincing. Critically, these problems surfaced when Dyson attempted to procure vacuums for its *internal* tests. The court has already held that only third-party tests are relevant for purposes of the preliminary injunction. In any event, Kaplan testified that after Dyson ordered a few units from Euro-Pro’s website using Dyson’s corporate credit card with its corporate billing address, Euro-Pro “appeared to be cutting off our orders.” (Tr. Vol. 1 at 141:7-17). Even if, as Kaplan suggested, Euro-Pro intentionally canceled Dyson’s orders (an issue that the court need not reach), the court declines to infer that ordering vacuums from Euro-Pro with a Dyson corporate credit card for internal testing was the only way to obtain a sufficient number of test vacuums for subsequent external testing. This is especially true because NV650s were readily available when IBR conducted its tests since IBR’s reports show that it ordered test NV650s from Amazon.com and Bed Bath & Beyond, and received additional test units either from Dyson or from Euro-Pro’s distributor in Chino, California. (PX 48-52; DX 109, DX 110.)

consider tests that fail to satisfy the 90% confidence interval.

This conclusion is not altered by Goldsmith's contention that test results are useful even if they do not meet the required confidence interval. As Goldsmith explained, the failure to meet the 90% confidence interval "doesn't actually affect the data; it affects your ability to report a single value." Tr. Vol. II at 234:13-16. This is true, in that the data for individual tests remains the same regardless of whether the 90% confidence interval is met. However, as discussed above, the value of data taken from testing of a small sample size that does not meet a 90% confidence interval is limited and fails to comply with ASTM F608-13's requirements.

In any event, reports pursuant to ASTM F608-13 include aggregated data, not individual data points. ASTM F608-13 at § 10.1. If IBR's test results did not meet the confidence interval, the standard dictates that IBR needed to test additional units until the confidence interval was reached. Dyson cannot rewrite ASTM F608-13 by deleting the requirement of additional tests and relying on test data that does not meet the confidence interval. *See Castrol Inc. v. Pennzoil Co.*, 987 F.2d 939, 944 (3d Cir. 1993) (rejecting defendant's use of ASTM test results supporting its claim of superior protection against oil viscosity breakdown where the applicable ASTM provision measured percentage of viscosity loss, and explaining that defendant had "ignore[d] the caveat embodied in the [ASTM D-3945] test as to the significance and use of ASTM D-3945.>").

The court is also unpersuaded by Dyson's attempt to blame IBR's failure to meet the 90% confidence interval on the allegedly shoddy quality of NV650 vacuums.<sup>20</sup> To support this

---

<sup>20</sup> The court did not allow Euro-Pro to present evidence about its manufacturing quality control as the scope of Euro-Pro's proposed testimony (via Barrocas) was insufficient to establish this point one way or the other.



theory, Dyson points to Goldsmith's testimony that she added two vacuums to the original three-vacuum test population when performing two separate tests of NV650 vacuums but still did not reach the 90% confidence interval. Goldsmith opined that this was caused by "variability of the product

. . . because the repeatability within the test, the trials, were very good." *See* Tr. Vol. II at 265:18-20. According to Goldsmith, when she realized that the tests did not meet the confidence interval, she discussed the situation with the test engineer and the supervisor and concluded that "within each sample, the variance is within what ASTM asks us to be. So that means that the variability from sample to sample is not the test engineer or the panels, but it is rather the samples' variability." *Id.* at 265:21-266:2.

"*Daubert*, as extended to all expert testimony including non-scientific expert testimony, requires the district court to perform the role of gatekeeper and to 'ensure the reliability and relevancy of expert testimony.'" *Naem v. McKesson Drug Co.*, 444 F.3d 593, 607 (7th Cir. 2006) (quoting *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 152 (1999)). The scientific basis for Goldsmith's opinion is unclear, especially in light of her acknowledgment that ASTM F608-13 provides guidance about what to do if the confidence interval is not achieved. *See Colorado Wild, Heartwood v. U.S. Forest Serv.*, 435 F.3d 1204, 1215 (10th Cir. 2006) (rejecting the plaintiff's theory about the cause of outliers as "merely a hunch" and noting the plaintiff's proposed solution of eliminating certain "projects . . . from the average seems arbitrary and result-oriented"); *Ass'n of Oil Pipe Lines v. F.E.R.C.*, 281 F.3d 239, 246-46 (D.C. Cir. 2002) (holding that "the object of excluding outliers is to prevent extreme and spurious data from biasing an analysis, *i.e.*, affecting its result adversely").

Moreover, as noted by Euro-Pro, in a prior case filed by Dyson about cleanability, Goldsmith submitted a declaration stating that it “is [her] standard practice” to “determine whether the three test runs on each carpet type satisfy the 90% confidence level statistical analysis.” *Dyson, Inc. v. Hoover, Inc.*, No. 09 C 2307 (N.D. Ill.), Dkt. 15 at ¶ 17. Because the initial sample population of three Hoover vacuums (the minimum required by the standard) did not meet the 90% confidence interval requirement, Goldsmith kept adding vacuums until the 90% confidence interval was attained, for a total of six vacuums. *Id.* at ¶ 18.

In this case, Dyson defends IBR’s decision to stop at five vacuums, even though the results did not satisfy the 90% confidence interval. In support, it directs the court’s attention to *Cook v. Rockwell Intern. Corp.*, 580 F. Supp. 2d 1071, 1091 (D. Colo. 2006), and asserts that this case shows that “various confidence intervals . . . do not provide a basis for finding [an expert’s] work and conclusions unreliable within the meaning of Rule 702.” In *Cook*, the court declined to exclude an expert report that contained an opinion based on a broad confidence interval (*i.e.*, one where the upper and lower ranges were far apart). The court held that “the breadth of [the expert’s] ranges go to the weight that the finder of fact may assign them, and not to the separate question of whether [the expert’s] testimony is admissible.” *Id.* But ASTM F608-13 specifies a mandatory confidence interval and dictates a procedure to be followed when that confidence interval is not met. *Cook* does not excuse IBR’s failure to comply with ASTM F608-13’s 90% confidence interval requirement.

In any event, regardless of whether the issue is framed as one of admissibility or weight, the result is the same: IBR tests that do not meet the 90% confidence interval are unpersuasive. Intertek’s July 17, 2014, and July 24, 2014 tests of NV650 vacuums met the 90% confidence

interval, as did IBR's November 7, 2014 tests of three NV652 vacuums. These tests produced roughly comparable geomeans and confidence intervals. Goldsmith is not a statistical expert and did not explain how IBR test results that did not meet the confidence interval cast doubt on the reliability of the three consistent sets of tests performed by Intertek *and IBR* that *did* meet the confidence interval.

Accordingly, the fact that Goldsmith is the only witness who was allowed to testify as an ASTM vacuum testing expert does not mean that her opinions about the importance of the confidence interval requirement are controlling. For the purposes of Dyson's motion for a preliminary injunction, which is, after all, about claims based on ASTM standards, the court gives no weight to test results that do not meet the 90% confidence interval. Thus, the court will not further consider IBR's tests of the NV650 vacuums dated October 17, 2014, and November 21, 2014, or IBR's tests of the DC65 dated March 28, 2014.

**ii. IBR's September 10, 2014 Testing**

Euro-Pro asks the court to strike IBR's September 10, 2014 report documenting testing of three NV651s results based on Dyson's alleged late production of other versions of this report.<sup>21</sup> The September 10, 2014 IBR testing is important because it purportedly was conducted using the

---

<sup>21</sup> Euro-Pro also asks the court to strike all of the IBR testing, as well as all of Goldsmith's testimony, based on its assertion that this evidence is unreliable. (Dkt. 86.) As of this date, Euro-Pro has presented this argument *five* times. It properly challenged this evidence during the preliminary injunction proceedings. It then rebriefed the issue in its submission regarding the standard of review (Dkt. 84), rebriefed it again in its motion to strike, rebriefed it yet again in its memorandum in support of its motion to dismiss (Dkt. 104), and then recently rebriefed it another time in its unsolicited proposed findings of fact and conclusions of law (Dkt. 106), which the court struck as improperly filed. The motion to strike is denied, as in resolving Dyson's motion for a preliminary injunction, the court necessarily considered whether IBR's testing and Goldsmith's testimony about that testing is reliable. Euro-Pro need not and should not keep rebriefing this issue. It wastes the court's time and is extremely annoying.

middle setting and met the 90% confidence interval, yet produced a substantially lower geometric mean for NV650 vacuums compared to other IBR or Intertek tests on NV650 vacuums that met the 90% confidence interval.

According to Euro-Pro, when Dyson originally produced the September 10, 2014 report, that report had a notation indicating that it had been edited on November 18, 2014 “for clarity of descriptions.” (Dkt. 87 at 2-3.) Euro-Pro also represents that during Goldsmith’s deposition, she testified that she had destroyed the original version of the report and could not recall what that version said or if she had sent it to anyone. Kaplan, however, testified at her deposition that she had the original version.

Dyson withheld the original version based on its contention that it was a draft report of a testifying expert and thus was protected by the work product privilege. On the first day of the preliminary injunction hearing (January 13, 2015), the court directed Dyson to produce the original version of the report. Dyson did so on the evening of January 15, 2015. It turned out that there were *two* prior versions of the September 10, 2014 report that Dyson had originally produced. These are attached to Euro-Pro’s motion to strike and are marked as DX 109 and DX 110. The court ordered Dyson to respond to the motion to strike. Dyson does not contest the authenticity of DX 109 or DX 110.

Thus, when Goldsmith testified, Euro-Pro had one version of the September 10, 2014 test (PX 48 and DX 85, which appear to be identical) and the supporting logbook dated September 5, 2014 (DX 86). After Goldsmith testified, Euro-Pro had a total of three versions of the report – PX 48/DX 85, DX 109, and DX 110. Euro-Pro correctly notes that the settings listed for the frieze testing differ in the three versions of the September 10, 2014 tests, as well as the

corresponding logbook. According to Dyson’s chart summarizing the available settings on the NV650s tested by IBR (PX 45), “carpet” corresponded to the upper setting at the time IBR performed the testing underlying the September 10, 2014 report. IBR’s documents regarding the September 10, 2014 frieze testing describe the setting used as: (1) Turbo Carpet (the middle setting) (DX86, the logbook dated September 5, 2014); (2) Carpet (presumably the lower suction upper setting) (DX 109, the first iteration of the September 10th test report); (3) Carpet Turbo (the middle setting) (DX 110, the second iteration of the September 10th test report); and (4) Turbo (the middle setting) (PX 48, the final iteration of the September 10th test report with the notation that it was modified for “clarify of descriptions” on November 18, 2014). In addition, the source of the test vacuums is inconsistent across the different versions of the September 10th report. The relevant portion of the logbook and the three different versions of the September 10th report are Attachment 2 to this opinion, included below, with the differences marked off in red.

“Ordinarily, a party may not discover documents and tangible things that are prepared in anticipation of litigation or for trial by or for another party or its representative.” Fed. R. Civ. P. 26(b)(3)(A). This privilege includes drafts of expert reports and certain communications between a party’s attorney and an expert witness. *See* Fed. R. Civ. P. 26(b)(4)(B) and (C). “Work-product protection does not apply to communications that identify facts or data the attorney provided and the expert considered, or assumptions the attorney provided and the expert relied on.” *United States Commodity Futures Trading Comm’n v. Newell*, 301 F.R.D. 348, 353 (N.D. Ill. 2014) (citing Fed. R. Civ. P. 26(b)(4)(C)(ii) and (iii)). Thus, “[a]rguably, facts, data or assumptions provided by an attorney to the expert should not be insulated from production

simply because the vehicle of communication was a draft of the report or an attorney's revision to the expert's draft." *Id.*

Euro-Pro argues that the different versions of the September 10, 2014 reports contain facts and data – not draft opinions – that are not privileged. *See* Fed. R. Civ. P. 26(a)(2)(B)(ii) (a written expert report must contain “the facts or data considered by the witness in forming [her opinions]”). It then contends that the late production of the “draft” September 10, 2014 report prevented it from deposing and cross-examining Goldsmith about the differences between the three versions of that report.

Dyson defends its decision to withhold the prior versions of the September 10th reports by contending that they were “prepared by its expert in preparation of Dyson filing suit.” (Dkt. 101.) *See* Fed. R. Civ. P. 26(b)(4)(B) (“drafts of any report . . . required under Rule 26(a)(2)” are protected from disclosure “regardless of the form in which the draft is recorded.”). Dyson also asserts that Euro-Pro is the author of its own problems since the September 10, 2014 report states on its face that it was “edited for clarity of descriptions” and Dyson indicated that it was withholding a draft version in a privilege log. According to Dyson, Euro-Pro could and should have filed a motion to compel prior to the evidentiary hearing. In a similar vein, although Dyson does not acknowledge that if Euro-Pro had recalled Goldsmith, it would not have had the benefit of deposing her about the drafts, Dyson contends that Euro-Pro could and should have attempted to recall Goldsmith after Dyson produced the prior versions in the middle of the hearing.

With respect to Dyson's contention that Goldsmith prepared the prior versions of the September 10, 2014 report with input from Dyson “in preparation of Dyson filing suit,” it is unclear if Dyson commissioned the September 10, 2014 testing in anticipation of litigation *and*

for a separate business purpose, since Kaplan testified that one of her job responsibilities was to test competitors' vacuums. *See* Edna Selan Epstein, *THE ATTORNEY-CLIENT PRIVILEGE AND THE WORK-PRODUCT DOCTRINE*, at 886 (5th ed. 2007) (if a document has a litigation and business purpose, it is discoverable "even though litigation may be foreseeable").

Moreover, "[c]ourts distinguish between 'fact' (or 'ordinary') work product and 'opinion' work product: while fact work product includes raw factual information, opinion work product includes counsel's mental impressions, conclusions, opinions, or legal theories." *Doe v. Soc. of Missionaries of Sacred Heart*, No. 11 C 2518, 2014 WL 1715376, at \*3 (N.D. Ill. May 1, 2014). Dyson's contention that IBR's September 10th ASTM testing report is, in fact, an expert report does not transform factual issues such as the provenance of the vacuums that comprise the test population and the settings used when performing testing into opinions. *See* Fed. R. Civ. P. 26 (2010 Advisory Committee Notes) (Rule 26's focus on "'facts and data' is meant to limit disclosure to material of a factual nature by excluding theories or mental impressions of counsel"). Accordingly, Dyson's citations to authority involving reports that reflect an expert's thought process when developing an opinion are inapposite. *See, e.g., In re Application of Republic of Ecuador*, 280 F.R.D. 506, 512-13 (N.D. Cal. 2012) *aff'd sub nom. Republic of Ecuador v. Mackay*, 742 F.3d 860 (9th Cir. 2014) (finding that work product protection applied to draft reports consisting of "draft notes, letters, memoranda, and outlines") (internal quotation marks omitted); *Etherton v. Owners Ins. Co.*, No. 10-CV-00892-MSK-KLM, 2011 WL 684592, at \*2-3 (D. Colo. Feb. 18, 2011) ("Defendant was not required to disclose Ogden's calculations because they are 'working notes.'").

“If a party fails to provide information . . . as required by Rule 26(a),” it “is not allowed to use that information or witness to supply evidence . . . at a hearing . . . unless the failure was substantially justified or is harmless.” Fed. R. Civ. P. 37(c)(1). The propriety of withholding the prior versions of the September 10, 2014 report would have been better developed in connection with a motion to compel which, as Dyson stresses, Euro-Pro did not file. In any event, the court finds that the late production of the draft reports prejudiced Euro-Pro, which was entitled to depose and cross-examine Goldsmith about IBR’s purportedly “independent” test report that reflected input from Dyson.

The fact that Dyson produced the logbook for the September 10, 2014 IBR testing does not alter this result. This case is about Euro-Pro’s contention that *independent laboratory testing* supports its cleaning claim. Dyson’s motion for a preliminary injunction turns on a battle of competing third-party lab reports. Cross-examining Goldsmith about the logbook is not the same as cross-examining her about the report required by ASTM F608-13, which directs testers to prepare a report and specifies what information must be included.

Similarly, Dyson’s assertion that the changes were merely semantic is unpersuasive. Dyson argues at length that the record unequivocally shows that the entire September 10, 2014 test on NV650 vacuums was performed using the middle setting and that it ordered the test vacuums from Euro-Pro’s Chino distribution center to be shipped to IBR. Euro-Pro presses the alternative position: that the record shows that IBR tested frieze using the upper setting and that Dyson ordered test vacuums, had them in its possession for an unspecified amount of time, and then sent the vacuums to IBR for testing. The court cannot resolve this factual dispute based on



the arguments of counsel. It thus declines to accept Dyson's contention that the substance of the September 10th report remained unchanged despite multiple rounds of revisions.

The court also notes the inconsistency of Dyson's position. Dyson asks the court to exclude Intertek's testing of the NV650 based on Medler's instructions to use the middle setting. It also criticizes Intertek's July 11, 2014 testing of the NV650 due to a chain of custody issue with the test vacuum population.<sup>22</sup> Yet, it defends its decision to withhold documents showing that Kaplan interacted with Goldsmith about the content of the September 14, 2014 report – including changing the language regarding the setting for frieze and the source of the test vacuums – and argues that despite the differences between the various versions of the report, the reported geomean is reliable and should be considered.

The court is troubled by the decision to withhold the draft versions of the September 10, 2014 testing and, as discussed above, believes that Euro-Pro was entitled to depose and cross-examine Goldsmith about these documents. But, is Euro-Pro entitled to the drastic remedy of excluding the reports? "Rule 37 provides that upon failure of a party to comply with a discovery request, a party may move the [c]ourt to enter an order compelling the noncomplying party to disclose the relevant information." *Control Solutions LLC v. Oshkosh Corp.*, No. 10 C 121, 2012 WL 3096678, at \*2 (N.D. Ill. July 27, 2012) (citing Fed. R. Civ. P. 37). Euro-Pro vigorously complains about prejudice but was aware of the existence of at least one draft version because, as Euro-Pro notes, the September 10, 2014 report produced by Dyson discloses that it was edited "for clarity of descriptions." And as Dyson stresses, Euro-Pro did not file a motion to compel or

---

<sup>22</sup> As the reader may recall, Intertek re-tested the DC65 due to the chain of custody issue, resulting in another test of a different population of DC65 vacuums on August 12, 2014.

attempt to recall Goldsmith during the evidentiary hearing.

The failure to file a motion to compel dooms Euro-Pro's motion to strike the September 10, 2015. *See id.* ("Oshkosh should not now be allowed to object to the use of the declarations on the basis that Oshkosh was not able to depose them when it never sought to compel their depositions.") Euro-Pro's motion to strike the September 10, 2014 IBR report based on Dyson's untimely production of the draft versions is, therefore, denied. However, as discussed below, this is a Pyrrhic victory for Dyson given its position that the September 10, 2014 IBR report is an expert report prepared in anticipation of litigation as opposed to an independent lab test. Specifically, in light of Dyson's assertion that the September 10, 2014 report is an expert report, the final version of that report is, by definition, not an independent lab test performed by a third-party laboratory that is free from outside influence. The court will discuss the substance of the September 10th report below.

### **iii. Brush Roller Issues**

The November 7, 2014 IBR report reflects testing of the NV650 using the middle setting on all four carpet types. IBR's November 7th test results are consistent with Intertek's testing of the NV650, which favors Euro-Pro. IBR's November 10, 2014 report uses the November 7th test results for level loop, multi level, and plush but removes the November 7th frieze test results using the middle setting and substitutes a new test on frieze using the upper setting, which has less suction. When conducting this new test on frieze, IBR experienced two problems with the brush roller as the test vacuum turned off and also turned itself off and then back on.<sup>23</sup> IBR did

---

<sup>23</sup> As with the tests that failed to meet the 90% confidence interval, Dyson blames the brush roller problem on shoddy construction, although its only proof was speculation based on the otherwise unexplained testing problems. In contrast, Euro-Pro claims that IBR must have

not attempt to rectify the problem by testing with an additional vacuum.

The purpose of the brush roller is to agitate the carpet to loosen dirt, which can then be suctioned up. *See* Tr. Vol. II at 305-23-25 (Goldsmith); Tr. Vol. III at 425:24-426:14 (Medler). As depicted in Attachment 1 to this opinion (ASTM F608-13 at Fig. A2.1), ASTM F608-13 contains a set of five highly detailed timed test cleaning patterns. *See also* ASTM F608-13 at § A2.1 (all vacuums must be moved back and forth following the specified pattern “for a total of exactly 16 strokes at the rate of 2.5 s[econds] per stroke, for a total time of 40 +/- 1 s[econds].”). No expertise in ASTM vacuum testing is necessary to reach the conclusion that if a vacuum stops multiple times during a 40-second test, the test cannot comply with ASTM F608-13, which provides for consistency in testing by requiring the operator to make a specific number of passes across the test carpet panels holding the test vacuum at a specific angle while vacuuming at a specific speed using a specific pattern of strokes. Moreover, common sense dictates that every second that a vacuum spends turning off and on is a lost opportunity to pick up test dirt. Thus, the testing of the Euro-Pro vacuum with the brush roller problem almost certainly underreported that vacuum’s cleaning performance to an unknown degree.

IBR claims that the vacuum performed well regardless, but it is difficult to understand how the performance issues could produce reliable test results.<sup>24</sup> The court cannot tell whether a

---

failed to press the pieces of the test vacuum together tightly enough, causing intermittent power connectivity issues. As noted above, the court did not allow Euro-Pro to present evidence about manufacturing quality control as the scope of the proposed testimony was insufficient to resolve this issue.

<sup>24</sup> Goldsmith testified that during the first run on frieze on November 10, 2014, the vacuum turned off for a “tiny moment” and that she approved the test because the vacuum was off for such a short time. Tr. Vol. II at 306:9-11. Goldsmith agreed that ASTM F608-13 does not indicate that it is acceptable for a vacuum to turn off and on for any period of time during a

properly functioning vacuum would have produced frieze results that would have supported a 90% confidence interval. In addition, there is no way to know how much the malfunctioning brush roller during the testing of the frieze carpet panel, as opposed to the use of the upper setting on that panel, contributed to the overall test results on November 10, 2014. These results showed poorer cleaning performance for the NV650 than the November 7, 2014 test results, which were based on testing performed using the middle setting on all four carpet types.

Does the fact that the aggregated results for all four carpet types satisfy the 90% confidence interval excuse the fact those results include frieze testing that failed to comply with the ASTM testing protocol? As with the prior test results that failed to meet the required 90% confidence interval, the court declines to rely on test results that do not conform to ASTM F608-13. The court, therefore, will not consider IBR's November 10, 2014 report in connection with Dyson's motion for a preliminary injunction.

#### **iv. Settings For Testing NV650 Vacuums on Frieze**

ASTM F608-13 requires testing to be conducted using the manufacturer's suggested settings. ASTM F608-13 at § 9.2.3.1 ("If various settings are provided, set the motor speed setting, suction regulation, nozzle height, or combination thereof as provided in the instruction manual for each type of carpet. Contact the manufacturer if no instructions are given, or if the instructions are unclear."). A large portion of the evidentiary hearing revolved around whether ASTM-compliant shag/frieze is high pile. This is important because the various combinations of

---

test. *Id.* at 305:7-10 ("Q: And if I stopped [in the middle of testing], that's not following what the test procedure says to do, right?" A [Goldsmith]: That is why it's noted.") In any event, during the second test run, "the brush roller was cutting in and out." *Id.* at 305:11-15. Dyson argues that these problems were fleeting but on this record, the court cannot conclude that they had no effect on the vacuum's performance.

instructions and handle nomenclature in the pre-December 2014 product literature for Euro-Pro's vacuums refer, in various ways, to carpet or pile height when telling customers how to select the proper setting. But the settings remain the same: the hard floor setting has the greatest amount of suction that the NV650 offers without the brush roller, the middle setting engages the brush roller and has the same suction as the hard floor setting, and the upper setting engages the brush roller and has less suction than the middle setting.

Dyson contends that ASTM-compliant frieze is meant to represent high pile carpets in consumers' homes. Dyson asserts that this means that Intertek erred when it used the middle setting instead of the upper setting when testing frieze. Thus, Dyson reasons that Intertek's tests do not comply with ASTM F608-13, so Euro-Pro's claim that independent lab tests show that the NV650 deep cleans carpets better than the DC65 is literally false. Dyson makes four interrelated arguments in support of its position about the setting for frieze: (1) Euro-Pro improperly selected the sample vacuums it gave to Intertek for testing, (2) Euro-Pro decided to tell Intertek to use the middle setting for all four carpet types to inflate the cleanability rating for the NV650 compared to the DC65's test results, (3) Euro-Pro's evidence about why Intertek opted to use the middle setting on all four carpet types is suspect, and (4) Intertek's tests on the NV650 conducted using the middle setting for frieze are invalid because ASTM vacuum testers would know that shag/frieze is intended to represent a high pile carpet and would, therefore, never select the middle setting for shag/frieze absent coaching by Euro-Pro.

**1. The NV650 Test Vacuums That Euro-Pro Gave to Intertek**

Dyson first criticizes Medler's method of selecting test vacuums. Because the NV650 was not commercially available in July 2014, the court is not troubled by the fact that Euro-Pro

sent Intertek vacuums to test. Indeed, Dyson sent DC65 vacuums to IBR for testing; IBR did not purchase all of its Dyson vacuums in the marketplace. *See* PX 47 (IBR’s September 9, 2014 DC65 tests); DX 81 (IBR’s March 28, 2014 DC65 tests). More troubling, however, is the fact that NV650 test vacuums given to Intertek were not identical.

Medler testified that she directed that Intertek be provided with six sample vacuums (three from each of Euro-Pro’s two factories). Section 6.1.8 of ASTM F608-13 defines a “sample” as “a group of vacuum cleaners taken from a large collection of vacuum cleaners of one particular model which serves to provide information that may be used as a basis for making a decision concerning the larger collection.” Section 7.1 provides that “[a] minimum of three units of the same model vacuum cleaner *selected at random* in accordance with good statistical practice shall constitute the population sample.” (emphasis added).

The requirement that a sample be taken from “one particular model” suggests that the test vacuums must be identical in all material respects. The court will not speculate about this issue as the parties did not present evidence about this portion of the ASTM. Similarly, the parties did not present any evidence about whether Euro-Pro’s selection method comports with “good statistical practice.” In sum, based on the present record, Dyson did not sufficiently establish that Euro-Pro failed to comply with ASTM F608-13 when it selected NV650 vacuums for Intertek to test. The court cannot, therefore, draw any conclusions about the propriety of Euro-Pro’s selection methodology. Thus, for present purposes, Dyson has not shown that it is likely to prevail on its claim that Intertek’s testing of the NV650 was invalid based on the test vacuum population selected by Euro-Pro for Intertek’s use.

## **2. Euro-Pro's Alleged Improper Influence on Intertek's Decision Regarding the Proper Setting to Use on Frieze**

The court next considers Dyson's contention that Euro-Pro told Intertek to use the middle setting (which has more suction than the upper setting) when testing frieze to inflate the cleanability rating for the NV650, despite Euro-Pro's instructions stating, in varying ways, that the upper setting should be used for high pile carpets.<sup>25</sup> Intertek's use of the middle setting on all carpet types comports with Euro-Pro's post-December 2014 product literature, which refers to pile height but states that the middle setting is the "default" carpet setting and directs consumers to use that setting unless they experience difficulties pushing or pulling the vacuum. The court observed Rosenzweig vacuum an ASTM-compliant frieze panel and a Mohawk-style high density carpet panel using an NV650 vacuum in the middle setting. The vacuum appeared to move easily on the frieze but appeared to "stick" on the high density carpet. The lower suction of the upper setting appeared to solve the difficulties with the high density carpet.

Euro-Pro defends its instructions to use the middle setting by asserting that this setting was always the default setting for all types of carpet and that the upper setting was meant to be used only when customers experienced problems moving the vacuum. That position is flatly inconsistent with the pre-December 2014 product literature, which refers to pile height and calls

---

<sup>25</sup> The instructions to use the middle setting on all carpet types is consistent with most of Euro-Pro's advertisements (with the exception of Internet banner ads), which specify that testing was conducted using the middle setting. To the extent that Dyson asserts that the information about the settings in the advertisements is in a footnote that consumers would miss, it has not offered evidence, such as a consumer study, to support this contention. To the extent that Dyson is implying that it did not understand that Euro-Pro's claim was based on testing the NV650 using the middle setting, Dyson's president, Ed Culley, and Leonore Kaplan, Dyson's competitive intelligence manager, both testified that they understood that Euro-Pro's claims were based on testing performed using the middle setting. Tr. Vol. I at 89:3 to 90:4 (Culley); 146:8-13 (Kaplan).

the settings a “carpet height selector.” In addition, Rosenzweig’s repeated insistence that the pre-December 2014 product literature means something different from what it says was unconvincing.

Euro-Pro’s current position about the settings is also inconsistent with the July 6, 2014 email sent by Euro-Pro employee Dan Bilger (job title unknown) to, among others, Medler and Barrocas. (PX 25.) In that email, Bilger stated that “Mark R’s hypothesis is that we [Euro-Pro] want consumers to always use the low suction setting in upright mode.” (*Id.*) Bilger “question[ed] this” because data showed that cleanability was higher using the middle setting and the NV650 had an improved ability to push/pull when vacuuming using the middle setting than prior models. He also questioned “Mark R’s hypothesis that we should use markings of “BARE FLOOR/LIFT AWAY/CARPET” [for the three settings] because he thought it was confusing. (*Id.*)

This email directly contradicts the testimony of Rosenzweig (“Mark R”) that Euro-Pro always intended the middle setting to be the default setting for carpet. It also suggests that at the beginning of July 2014, Euro-Pro was aware that the NV650 cleaned better using the higher suction middle setting but had not reached a definite conclusion on whether the middle or upper setting was the default setting for carpet. Nevertheless, in mid-July 2014, Euro-Pro instructed Intertek to use the middle setting for its ASTM testing. Moreover, despite the seemingly constant revisions of its product literature, Euro-Pro did not instruct customers to select a setting based on something other than pile or carpet height until December 2014. Indeed, even the current version of the instructions (DX 30), while referencing the ability to push and pull the vacuum, still refers to pile height.



Euro-Pro explains its decision to instruct Intertek to use the middle setting by stressing the testimony of its carpet expert (Gould) that the pile of the ASTM frieze sample is not high enough to warrant the use of the high pile setting.<sup>26</sup> Euro-Pro contrasted the ASTM frieze sample with a carpet sample that had fibers that are significantly longer than the ASTM-compliant frieze fibers. In addition, Gould testified that some of the fibers of certain shag carpets are so long that they cannot be vacuumed and, instead, must be raked. On the other hand, Dyson argues that a consumer would naturally use the high pile setting for a shag/frieze carpet and stresses that in other lawsuits, Euro-Pro's executives have testified under oath that shag in general is a high pile carpet (which does not necessarily equate to a concession that ASTM-compliant shag/frieze must be vacuumed using the upper setting).

The individuals who conducted or supervised internal and external tests championed the use of the setting that favors their respective vacuums based on their own impressions about frieze's pile height. Both sides also offered expert testimony about the frieze pile height issue. Gould and Goldsmith offered divergent opinions on whether the ASTM frieze is a high pile carpet but agreed that no industry standard defines high and low pile carpets. The court thus takes their opinions with a grain of salt. *See Wiegel v. Stork Craft Mfg., Inc.*, 946 F. Supp. 2d 804, 813 (N.D. Ill. 2013) ("whether a [crib] is 'safe' is not so easily susceptible to a binary 'yes' or 'no'" as this claim "is virtually impossible to quantify in any reliable or uniform fashion, other than by reference to objective criteria such as those set forth in the regulations and industry

---

<sup>26</sup> Gould opined that the ASTM-compliant frieze is not a high pile carpet. He testified during the evidentiary hearing that prior to this case, he had not seen or read ASTM F608 or the corresponding standard (ASTM F655) that includes specifications for the four types of carpet used in ASTM F608 testing. He also testified that he had never observed or conducted any testing of vacuums, whether pursuant to ASTM F608 or otherwise.

standards”). On a similar note, Gould’s opinion that the ASTM-compliant frieze did not require the use of a high pile setting and Goldsmith’s opinion that it did are not compelling because these opinions lack any discernable scientific basis. *See* Fed. R. Evid. 702 (among other things, the court must ascertain whether an expert’s testimony “is the product of reliable principles and methods”). Moreover, individuals with expertise in carpeting (such as Gould) and ASTM F608 testing (such as Goldsmith) do not appear qualified to opine on whether consumers who have any of the various pre-December Euro-Pro manuals would believe that the ASTM-compliant frieze required the use of the upper setting.

The court agrees with Dyson’s witnesses (and Euro-Pro, at least on occasion) that as a general proposition, shag/frieze is a high pile carpet relative to the other three ASTM carpet types. ASTM-compliant frieze has a pile height of .919" +/- .02", almost four times longer than the pile height of .25" +/- .02" for level loop, especially when the possible error of +/- .02" is taken into account. It is undisputed that shag/frieze was intended to be representative of high pile carpets in consumers’ homes and shag is generally viewed as a high pile carpet. But this does mean that ASTM-compliant frieze necessitated the use of the upper setting. It also does not mean that all individuals faced with carpet resembling ASTM-compliant frieze (whether a consumer or a testing laboratory) would choose the upper setting. It should not be forgotten that the ASTM samples were designed to represent a range of typical carpet types, not to correspond to Euro-Pro’s instructions.

Ultimately, the court need not assess Dyson’s likelihood of success based on Dyson’s contention that the upper setting of the NV650 is the only proper way to test ASTM frieze because whether Dyson is right or wrong does not affect the resolution of its motion for a

preliminary injunction. Dyson argues that Intertek should have used the upper setting on frieze, so Euro-Pro's advertising claim was based on improper ASTM testing. But the current iteration of Euro-Pro's instructions makes clear that the middle setting is the default setting for carpet, and advises consumers to use the upper setting only if they experience difficulty pushing or pulling the vacuum. Euro-Pro's instructions also state that ASTM F608 testing should be conducted using the middle setting.

Dyson did not present evidence challenging Rosenzweig's in-court demonstration, showing that the NV650 moved easily on ASTM-compliant frieze. When asked about the December 2014 instructions, Goldsmith testified that she "assume[d]" that she needed to "determine if the vacuum is difficult to push or pull first" before choosing a setting and that she "would have to do that in order to pick a selector." Tr. Vol. II at 327:6-8, 12-15. To the extent that Goldsmith indicated that she nevertheless believed that the references to pile height in the instructions and on the handle (in the nomenclature and icons) were confusing, the parties agree that in that instance, a testing laboratory would need to call the manufacturer. If a call were made, one can safely assume that Euro-Pro would instruct IBR to use the middle setting.

Thus, as of the date in December when the latest instructions and quick start guide were released, Euro-Pro's revisions cured any defects in the prior versions of its product documentation. Claims of past harm are insufficient to support preliminary injunctive relief. *See* 11A Charles Wright, Arthur Miller & Mary Kay Kane, *Federal Practice and Procedure: Civil* 2d at § 2948.1 (2d ed. 1995) ("Only when the threatened harm would impair the court's ability to grant an effective remedy is there really a need for preliminary relief"). Thus, the court reserves the pile height/setting issue for another day, when the record will be more fully developed, and

declines to find that Dyson has established a likelihood that Intertek's tests are invalid because Intertek tested frieze using the middle setting.

### **3. Communications Between Euro-Pro and Intertek Regarding Settings**

Dyson also attacks the setting choice by arguing that the evidence about why Intertek chose to run its tests using the middle setting on all four carpet types was contradictory and implausible. Alex Porter (Intertek's senior chief engineer for performance and durability, who was not personally involved in Intertek's testing of the NV650) testified that Intertek contacted Euro-Pro to inquire about the settings because the information on the handle and the directions in the manual available on the Internet were inconsistent. The record does not contain the on-line version of the manual as of July 2014, when Intertek tested the NV650. The on-line manual in the record – which is the first version to instruct consumers to use the middle setting unless they experience difficulties pushing and pulling the vacuum – was posted approximately five months later, at some point in December 2014. Thus, Porter's contention that in July 2014, he went on-line and reviewed a manual that was first posted on-line in December 2014 is not credible.

More fundamentally, however, Porter was aware that ASTM F608 instructs testers to consult the manual in the box. If those instructions are clear, there is no reason to seek more information by going on-line. And if the instructions are unclear, the ASTM standard instructs the tester to call the manufacturer, not to look at on-line product information. Thus, Porter's explanation of why Intertek called Euro-Pro is inconsistent with ASTM F608's directives about what to do in the event of ambiguity.

It is also inconsistent with the fact that the individual conducting the testing (Steven Reese, who was not called as a witness) gave a different reason for contacting Euro-Pro. On

July 17, 2014, Reese – who is in the best position to know why he decided to contact Euro-Pro – sent an email to Medler stating:

I see that the NV651 has two carpet settings. Carpet and Thick Carpet. OMG, wait a second I just looked [at] the 651 again and see a problem. Look at the attached photos, 2 of the units show Carpet & Thick Carpet on the controls and 1 has Turbo and Carpets like the 650. Huh????

(PX 13.) In response to this inquiry, Medler instructed Reese to use the middle setting.

Dyson argues that Medler’s instructions improperly circumvented ASTM F608-13’s requirement that the tester read the directions as the first step in deciding what settings to use.<sup>27</sup> According to Dyson, if Reese had not asked Euro-Pro what setting to use, he would have used the upper setting when testing frieze. Neither side called Reese as a witness. Because Reese did not testify, the record does not show what he would have done if the handles had been identical.

It is possible to draw the inference that Dyson asks the court to make – that Euro-Pro chose the test vacuum population to inflate the NV650’s test results by giving Intertek a reason to contact Euro-Pro about the settings. But the court cannot draw this inference based on the present record because, as discussed above, the record does not make clear how and why Euro-Pro selected the test vacuums to send to Intertek and whether the selection process complied with ASTM F608-13. While the court questions the series of events that led to Reese’s email, it cannot find on this record that these events invalidate Intertek’s testing.

---

<sup>27</sup> IBR tested five NV651 vacuums on November 21, 2014. As shown by the test reports, this test vacuum population included samples with different handle icons and nomenclature as the reports state that the upper settings were labeled “thick carpet/area rug” and “carpet/high pile.” (PX 52.) IBR did not contact Euro-Pro for clarification.

#### **4. IBR's Choice of Settings When Testing the NV650**

In drawing its conclusions about Intertek's choice of settings, the court also considered the settings chosen by IBR when testing the NV650. The parties dispute why IBR originally ran tests on all four carpet types using the middle setting and then changed to the upper setting on frieze. Dyson asserts that IBR began its tests using the middle setting because Euro-Pro's claim was based on this setting. It then asserts that IBR switched to the upper setting for frieze because IBR wanted to comply with ASTM F608-13, which required IBR to follow the now-outdated instructions directing consumers to use that setting on high pile carpets. In contrast, Euro-Pro argues that IBR started testing frieze using the upper setting to handicap the NV650 after IBR realized that the NV650 outperformed the DC65 when the NV650 was tested using the middle setting.

The limited record, due to the expedited nature of these proceedings, does not allow the court to decide which side's view of the evidence is correct. Thus, for present purposes, IBR/Goldsmith's belief that frieze should be tested using the upper setting does not establish a sufficient likelihood of success on Dyson's claim that Intertek's use of the middle setting on frieze was improper.

In sum, based on the current record and for the purposes of Dyson's motion for a preliminary injunction, the court will not exclude Intertek's July 17 and July 24, 2014 test results for the NV650 based on Intertek's use of the middle setting instead of the upper setting when testing frieze.

**B. Interpretation of the Third-party Testing**

To recap, the following six tests are before the court:<sup>28</sup>

Date	Exhibit	Lab	Vacuum
July 17, 2014	DX 7	Intertek	Euro-Pro
July 24, 2014	DX 8	Intertek	Euro-Pro
August 12, 2014 (replaces data from July 11, 2014 test)	DX 9	Intertek	Dyson
September 9, 2014	PX 47	IBR	Dyson
September 10, 2014	PX 48; <i>see also</i> DX 86, DX 109, DX 110	IBR	Euro-Pro
November 7, 2014	PX 50	IBR	Euro-Pro

As discussed above, the court believes that the geomeans *and* the upper and lower limits of the corresponding confidence intervals, plus the 90% confidence level, are the most probative because this data better predicts how other vacuums in the marketplace would perform if tested. The parties' presentation, however, leaves the court with no option other than considering geomeans, as we might say, in a vacuum. For the NV650, the geomeans for Intertek's July 17, 2014 testing, Intertek's July 24, 2014 testing, and IBR's November 7, 2014 testing are generally consistent and are clustered relatively tightly together. For the DC65, Intertek's August 12, 2014 testing and IBR's September 9, 2014 testing are also generally consistent but are clustered together a little more loosely than the tests for the NV650 because there is a greater difference between IBR's and Intertek's test results for the DC65 (IBR's testing is more favorable to Dyson).

---

<sup>28</sup> The court considered including a graphical representation of the relative positions of the test results to each other. It elected not to do so because it does not wish implicitly to approve a choice of a specific scale. *See Reference Guide on Statistics*, at 236-37.

Relying on this data at face value, the NV650 narrowly edges out the DC65; the non-excluded test results from Intertek and IBR on the NV650 are slightly higher than the non-excluded test results from Intertek and IBR on the DC65. Further development of the record may change this conclusion. However, this comparison of the test results dooms Dyson's motion for a preliminary injunction.

In reaching this conclusion, the court declined to consider the September 10, 2014 IBR test results on the NV650 that was the subject of Euro-Pro's motion to strike. Dyson contends that the September 10, 2014 IBR test report is an expert report but has not explained how an expert report can also be an independent laboratory report. Because Euro-Pro's claim is based on independent laboratory testing and the September 10, 2014 IBR test is, according to Dyson, an expert report, the September 10th test is not entitled to any weight.

But, even if the court had considered IBR's September 10th testing of the NV650, the result would be the same. That testing produced a geomean and upper and lower ranges for the confidence interval that are inconsistent with IBR's much higher November 7, 2014 test results for the NV650. Dyson thus champions the September 10th IBR testing and renounces reliance on IBR's November 7, 2014 test results.<sup>29</sup>

---

<sup>29</sup> Dyson's list of the tests that it is relying on omits IBR's November 7, 2014 report, despite its assertion that all of IBR's testing was "properly conducted and [is] probative evidence of other points that are likely to arise in this litigation, such as the variability of Euro-Pro's vacuums across production lots." (Dkt. 99 at 2.) Dyson thus appears to be arguing that IBR's September 10 and November 7 test results differed due to the alleged poor quality of Euro-Pro's vacuums. This contention is speculative and fails to account for the fact that the November 7th, 2014 IBR testing of the NV650 is generally consistent with Intertek's two tests of the NV650. To the extent that Dyson seeks to have the court exclude IBR's November 7, 2014 testing, which meets the 90% confidence interval and was performed by Dyson's own third-party lab, the court declines to do so. It will consider IBR's November 7, 2014 test results.



Even though IBR's November 7th test results are consistent with Intertek's July 17, 2014, and July 24, 2014 test results for the NV650, Dyson asserts that IBR's much lower September 10th test results "prove[] that the Shark vacuum cannot beat Dyson's DC65 in any setting." (Dkt. 101 at 8.) Notwithstanding the potential issues with the September 10th report (the setting used on frieze and the source of the sample vacuums), the fact remains that testing by Intertek *and* IBR on the NV650 produced consistent results. In contrast, the September 10, 2014 IBR testing on the NV650 produced drastically lower numbers than IBR's own November 7, 2014 testing of the NV650, as well as Intertek's testing of the NV650.

Three similar tests (Intertek's July 17th and July 24th tests plus IBR's November 7th test) are more persuasive than one dissimilar test (IBR's September 10th test). See *Reference Guide on Statistics*, at 291 (defining an outlier as "[a]n observation that is far removed from the bulk of the data. Outliers may indicate faulty measurements and they may exert undue influence on summary statistics, such as the mean or the correlation coefficient."). Dyson has not provided a convincing reason why its contention that the court should discard three similar tests from two different labs in favor of one unique test is likely to succeed. Accordingly, the results of the non-excluded tests do not suggest that Dyson is sufficiently likely to prevail on the merits of its establishment claim.

**C. Literal Falsity – Did Euro-Pro Have Third-party Test Results for the NV650 and DC65 Vacuum When it Began to Make Cleaning Superiority Claims?**

Dyson's second claim is that Euro-Pro began making cleaning superiority claims before it received Intertek's test results for the NV650 and the DC65. The parties gave this argument short shrift during the evidentiary hearing. Euro-Pro launched the NV650 on July 8, 2014. At that time, the box (PX 57) stated that independent laboratory testing supported Euro-Pro's

cleaning superiority claim. It appears that Euro-Pro initially offered those vacuums directly via its website and then expanded distribution to stores and Internet retailers.

With respect to Euro-Pro's infomercial, Rosenzweig testified that Euro-Pro launched the NV650 in time to be sold during the August-to-December vacuum selling season. He stated that "[he] film[ed] the infomercials [in] June" with the intention that they "go on the air in August" but that he did not recall the date when the infomercial launched. Tr. Vol. IV at 639:17-20. Barrocas testified that "we [Euro-Pro] went on TV [with the infomercials] in September." *Id.* at 682:24.

In support of its contention that Euro-Pro lacked testing to support its claims, Dyson argues that Euro-Pro has a "pattern and practice of targeting best-in-class competitor[s] and making false claims about that competitor in its ads." (Dkt. 9 at 3 n.1.) This is irrelevant. The question here is whether Dyson has shown that it is entitled to a preliminary injunction based on the comparative claims at issue in this case.

Dyson contends that Euro-Pro lacked any basis – from July 8, 2014, when the NV650 launched to the present – for its claim that independent lab tests show that the NV650 outcleans the DC65. As discussed above, however, based on the evidence presented during the preliminary injunction hearing, Euro-Pro had a valid basis for its cleaning superiority claim as of August 12, 2014, when it received Intertek's test results for the DC65, since at that time, it already had received Intertek's July 17 and July 24, 2014 testing for the NV650.

It is unclear if Euro-Pro began running infomercials for the NV650 in August 2014 (Rosenzweig) or September 2014 (Barrocas). If the infomercials in fact began to air in August, it is unclear if any airings predate the August 12, 2014 Intertek test results for the DC65. It is

similarly unclear whether Euro-Pro's on-line or print advertising prior to August 12, 2014, contained a cleaning superiority claim based on so-called independent lab testing.

Further, the record does not make clear whether Intertek was, in fact, an "independent" testing facility that is free from any outside influence, as claimed by Euro-Pro. Setting that issue aside as unproven at this point, to the extent that Euro-Pro aired the infomercial or made any representations about comparative third-party lab testing results prior to August 12, 2014, Dyson may well be entitled to damages. After August 12, 2014, however, this record suggests that Euro-Pro's claim was supported by Intertek's testing. As discussed above, past harm is insufficient to support injunctive relief, which is inherently forward-looking. *See* Federal Practice and Procedure: Civil 2d at § 2948.1. Thus, Dyson has not shown that is entitled to a preliminary injunction based on its claim that Euro-Pro falsely represented that it had independent lab tests that supported its cleaning superiority claims.

**D. Balancing the Preliminary Injunction Factors**

The stakes are high in the competitive realm of comparative advertising about a vacuum's ability to clean. The public's interest in truthful advertising "lies at the heart of the Lanham Act." *Abbott Laboratories v. Mead Johnson & Co.*, 971 F.2d 6, 18 (7th Cir. 1992). The court recognizes that Dyson's injury in the face of Euro-Pro's advertising claims is likely to be both significant and irreparable. But for now, Dyson has simply failed to establish a sufficient likelihood of success on the merits of its claims. Thus, its motion for a preliminary injunction is denied.

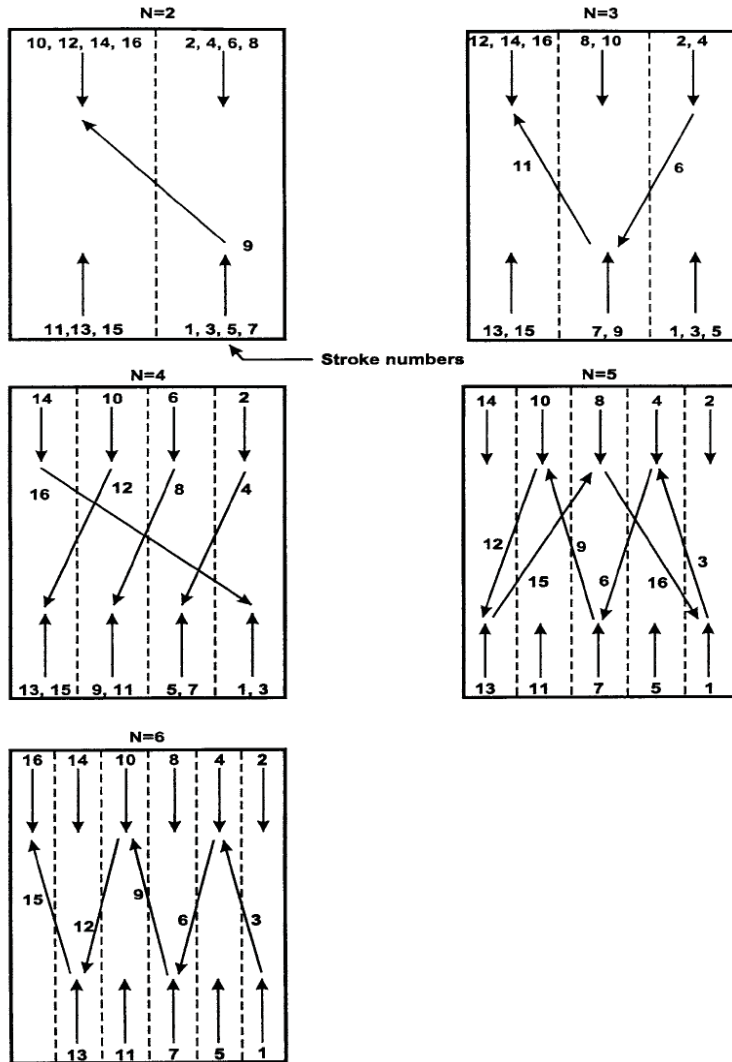
## V. CONCLUSION

For the reasons discussed above, Euro-Pro's motion to strike IBR's testing and all of Goldsmith's testimony [86] is denied and Dyson's motion for a preliminary injunction [8] is denied.

Date: March 10, 2014

\_\_\_\_\_  
/s/  
Joan B. Gottschall  
United States District Judge

**Dyson v. Euro-Pro — Attachment 1**  
**(ASTM F608 Test Cleaning Patterns, PX6 at Fig. A2.1)**



NOTE 1—The diagonal strokes shown in each pattern indicate that the test nozzle is moved from one stroke location to another during the diagonal stroke. There is no specific start or end point for the diagonal movement of the test nozzle during the diagonal stroke.

FIG. A2.1 Test Cleaning Patterns

**Dyson v. Euro-Pro — Attachment 2  
(IBR September 10, 2014 Test Results)**

The logbook provides:

IBR LABORATORIES®	
Performed for:	Dyson Chicago
Contact:	Lenore Kaplan
Source:	Dyson Chicago, IL
IBR JN:	15389
Date:	05 September, 2014
Tested By:	MM
Test Method:	ASTM 608-13 Embedded Dirt Removal Clean Vacuum
Fluid :	Air
Contaminant:	ASTM F608 Test Dust Mixture
Sample Description:	VAC-1: 15389-1 Shark Rotator Powered Lift-Away Del M/N: NV651 31 15389-1 VAC-2: 15389-2 Shark Rotator Powered Lift-Away Del M/N: NV651 31 15398-2 VAC-3: 15389-3 Shark Rotator Powered Lift-Away Del M/N: NV651 31 15389-3
Conditioning Vacuum:	Dyson DC-41 Conditioning Vacuum
Brush Height:	Auto
Carpet:	Shag
Voltage:	120 VAC 60 Hz

(DX 86.)

The version of the September 10, 2014 report introduced into evidence at the hearing provides:

IBR LABORATORIES®	
<b>TEST REPORT</b>	
Performed for:	Dyson
IBR JN:	15389
Date:	10 September 2014 18 Nov 2014 for clarity of descriptions
Location:	Chicago, IL
Contact:	Lenore Kaplan
Test Method: Carpet Embedded Dirt Removal Effectiveness per ASTM F608-13	
Temperature, 22.2-23.1 C	Humidity, 49.2-52.4%
Contaminant: 90g silica sand, 10g talcum per ASTM F608-13 Annex A1	Expiration Date: 30 July, 2015
Carpet: Shag Custom Tufted per ASTM F655, sec (SG-06)	
Description of Sample: Shark Rotator Powered Lift-Away Deluxe Vacuums, M/N NV651.01 (no SN)	
Setting: Turbo (middle setting on slider)	Note: Manufacturer's recommended setting for low pile carpet
Power: 120 VAC	Frequency: 60 Hz
Date Received:	29 August, 2014
Sample Source:	Europro Chino CA Distr

(PX 48/DX 85.)

The two other versions of the September 10, 2014 testing produced by Dyson in the middle of the hearing – after Goldsmith left following the completion of her testimony – provide:

**IBR LABORATORIES®**  
**TEST REPORT**

Performed for: Dyson Location: Chicago, IL  
**IBR JN:** ~~15300B~~ Contact: Lenore Kaplan  
Date: 10 September, 2014

Test Method: Carpet Embedded Dirt Removal Effectiveness per ASTM F608-13

Temperature, 22.2-23.1 C Humidity, 49.2-52.4%  
Contaminant: 90g silica sand, 10g talcum per ASTM F608-13 Annex A1 Expiration Date: 30 July, 2015  
Carpet: Shag Custom Tufted per ASTM F655, sec (SG-06)

**Description of Sample:** Shark Rotator Powered Lift-Away Delux Vacuums, M/N NV651.31 (no S/N)  
Setting: Auto Nozzle Width: 302 mm Power Setting: Carpet  
Power: 120 VAC Frequency: 60 Hz  
Date Received: 29 August, 2014 Sample Source: Dyson Chicago, IL

(DX 109.)

**IBR LABORATORIES®**  
**TEST REPORT**

Performed for: Dyson Location: Chicago, IL  
**IBR JN:** ~~15300B~~ updated Contact: Lenore Kaplan  
Date: 10 September, 2014 updated 19 September 2014 (correct typo on nozzle setting)

Test Method: Carpet Embedded Dirt Removal Effectiveness per ASTM F608-13

Temperature, 22.2-23.1 C Humidity, 49.2-52.4%  
Contaminant: 90g silica sand, 10g talcum per ASTM F608-13 Annex A1 Expiration Date: 30 July, 2015  
Carpet: Shag Custom Tufted per ASTM F655, sec (SG-06)

**Description of Sample:** Shark Rotator Powered Lift-Away Delux Vacuums, M/N NV651.31 (no S/N)  
Setting: Carpet Turbo Nozzle Width: 302 mm  
Power: 120 VAC Frequency: 60 Hz  
Date Received: 29 August, 2014 Sample Source: Dyson Chicago, IL

(DX 110.)