16. Neither party has presented the court with the appropriate evidence it needs to do a proper analysis regarding defendant's PFA testing; plaintiff has not met its burden in this regard. Defendant presented its PFA values at the preliminary injunction hearing in this case; it relies on that testimony in its current papers. Plaintiff correctly points out that, during the bench trial, defendant did not expand on the summary-level testimony. Defendant cites only its witness's acknowledgment that PFA testing is a recognized industry measure for sunscreen performance. (D.I. 98 at 9-11) Defendant does not point to any specific data in its papers.⁶ (*Id.*; D.I. 93 at 28)

17. The only testimony cited by plaintiff in support of its challenge to defendant's PFA-testing methodologies is a statement by Dr. Patricia Agin ("Agin"), a photobiologist and Fellow in plaintiff's Research & Development Group, that she would use the same midpoints for SPF in a PFA test. (D.I. 94 at 13, citing D.I. 108 at 154:13-21) Plaintiff argues in its papers that defendant failed to comply with this principle, but does not point to any testimony in support. Plaintiff cites no other testimony challenging defendant's methodologies. (D.I. 94 at 11-12) Notwithstanding the obvious deficiencies in defendant's substantiation of its PFA testing, plaintiff had the burden of proof on this issue, and it has not met that burden on this record.

⁽citation omitted) (emphasis added).

⁶Plaintiff points out several trial exhibits in which defendant's PFA data is contained, in its view, in incomplete form. (D.I. 94 at 12-14) Although defendant broadly cited plaintiff's PFA testing results, comprising nearly 200 pages of material (DTX 63; DTX 64), defendant has not clearly relied on any particular exhibits in its reply to plaintiff's implied establishment claim assertion.

b. Literal falsity relating to "UVA"

18. In its preliminary injunction opinion, the court found that the pre-trial record did not support a finding of literal falsity with respect to the differentials between the combined SPF and UVA bars correlating to Coppertone Sport® and Neutrogena Ultimate Sport®. (D.I. 53 at 20-21)

19. There remains no dispute between the parties on the math: (1) plaintiff offers products ranging from SPF 15 to 70+ under the "Sport®" label, averaging SPF 38.5; (2) defendant offers products ranging from SPF 55 to 70+ under its "Ultimate Sport®" label, averaging SPF 64; and (3) the difference between average SPFs "across the entire [] line[s]" (38.5 vs. 64) is a 40% SPF differential in favor of defendant's line. (D.I. 93 at 28; D.I. 97) The "SPF" portion of the bars for both products differs by about 40%;⁷ there is no literal falsehood here.

20. Additionally, the **PFA** scores obtained by defendant across the entire product lines averaged 30.2 for Neutrogena Ultimate Sport® and 16.7 for Coppertone Sport®.⁸ There is a near 100% difference in the relative heights of the **UVA** bars.**[] Although the parties debate whether "UVA" is an appropriate measurement to convey to consumers, and whether it is essentially double-counted between the "UVA" and "SPF" portions of the bar chart, there is no dispute that PFA is a measurement of UVA protection. (D.I. 103 at 62:21-22; *id.* at 151:5-7; *id.* at 154:24-155:4; D.I. 105 at 465:4-

⁷Because there are no values or scales associated with the bar graph, the truth or falsity of the bar graph must be ascertained using the relative proportions of the bars.

⁸(D.I. 93 at 28, citing D.I. 37 at 135-37) Plaintiff does not dispute defendant's numbers, but does dispute whether defendant's PFA testing was scientifically reliable to support an implied establishment claim.

5) The "UVA" bar for Neutrogena is approximately 100% larger than that for Coppertone; there appears to be a direct correlation between defendant's data and the graph.

21. The court agrees with plaintiff that the bar graph is misleading in several other respects – the first of which is defendant's utilization of "UVA" with "SPF" as a measure of protection in the first instance. "UVA" is a designation for ultraviolet light within the wavelength of 400 nm-****320** nm – not a measurement of skin protection. Elsewhere, defendant has referred to either PFA or UVA-PF (protection factor) as units of measurement for UVA protection. (DTX-60; DTX-61; DTX-56-N293) Defendant does not argue that UVA is a measurement of protection in its reply papers, only that "there is nothing false about using PFA scores to make claims concerning UVA protection." (D.I. 98 at 6) Defendant did not use PFA scores to draw its comparison.

22. Defendant stacked a UVA value (of unspecified number) atop a SPF value (of unspecified number) such that the Best line ad conveys that Neutrogena has twice the quantities of these measures. Plaintiff asserts that this stacking is literally false insofar as UVA protection is double-counted; it is subsumed within "SPF," and provided separately (under "UVA").

23. Plaintiff's double-counting argument was addressed in the court's preliminary injunction opinion. In view of inconsistencies between the experts regarding the percentage of UVA subsumed by the SPF measurement (20% vs. 10%), and evidence that consumers relate SPF strictly with UVB protection, the court declined to find (on that record) that the bar graph imparts an unambiguous message. (D.I. 53 at 19)

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24. Having now had the benefit of trial, the court is persuaded that its initial impressions regarding literal falsity were incorrect. Due to the predominancy of UVB in the SPF measurement, SPF is commonly understood to refer to UVB rays. As noted in the court's prior opinion, the FDA has issued a statement to this effect. (D.I. 53 at 18-19) There is no dispute, however, that at least 10% of a "SPF" measurement correlates to UVA protection. (D.I. 98 at 7, citing D.I. 103 at 135:16-17 (20% UVA); D.I. 104 at 277:19-278:8 (10% UVA); *see also* D.I. 103 at 132:7-11)

25. Defendant's ad does not equate SPF with UVB alone, but it is literally false because it provides a separate "UVA" quantification which is neither an accurate description of protection nor completely independent of the SPF value. The Best line ad clearly conveys, through the use of different colors and labels, that "UVA" and "SPF" are different measurements, and this is undisputably not so. While it is true that these errors are present with respect to both products compared in the graph, the absence of bias caused by the double-counting does not eliminate the falsity of the message.⁹

c. Implied falsity

26. The crux of plaintiff's argument in this regard is that the Best line ad does not convey that Coppertone Sport® has a lower **average** SPF "across the entire product line" (averaging SPF 15 to SPF 70+) than the Neutrogena Ultimate Sport® line (averaging SPF 55 to 70+). The bars of the graph are labeled "Neutrogena Ultimate Sport®" and "Coppertone Sport®," respectively, without reference to any SPFs for

⁹Plaintiff asserts that, if UVA/UVB equates to PFA and SPF, the Best line ad's statement that Neutrogena has the "highest combined UVA/UVB protection across the entire Neutrogena® Ultimate Sport® line" is incorrect insofar as Coppertone's numbers are higher. The court need not evaluate this additional claim in view of its holdings.

either brand. Plaintiff essentially argues that consumers perceive the ad to reflect an apples-to-apples comparison of **similarly-labeled** sunblocks, for example, Neutrogena Ultimate Sport® SPF 70+ (as pictured) and Coppertone Sport® SPF 70+, while in fact the comparison is between the average SPFs of many products. The number of products compared in the depicted averages is not disclosed.

27. To make its claim that the Best line ad conveys an impliedly false message, "plaintiff bears the burden of proving actual deception by a preponderance of the evidence. . . it cannot obtain relief by arguing how customers could react; it must show how customers actually do react." *Sandoz Pharma. Corp. v. Richardson-Vicks, Inc.*, 902 F.2d 222, 228-29 (3d Cir. 1990). To this end, plaintiff presented a survey conducted by Dr. Gary Ford ("Ford"), an independent consultant, which demonstrates (in his opinion) that "consumers perceive that they can get greater protection . . . and/or durability from Neutrogena than Coppertone after seeing [the Best line ad]. (D.I. 104 at 230:9-12)

28. Ford's methodology included a "controlled experiment" where two groups of consumers were shown different advertisements – one group was shown the Best line ad (a "test group") and one group was shown a "control advertisement" ("control group"). Ford stated that he prepared the control advertisement by excising the allegedly misleading claims from the control advertisement, while keeping the rest of the control advertisement similar to the Best line ad. (*Id.* at 210:21-24; 212:2-5) Ford concluded that approximately 24% of the respondents "perceived that [Neutrogena] either offered greater protection or greater durability than Coppertone." (*Id.* at 221:13-17) It is plaintiff's position, based on Ford's results, that the Best line ad

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deceived a substantial portion of the intended audience by communicating the false message that all Neutrogena Ultimate Sport® products provide better protection or more durability than Coppertone Sport®. *See Novartis*, 290 F.3d at 591 ("survey evidence demonstrating that 15% of the respondents were misled . . . is sufficient to establish actual deception or at least a tendency to deceive").

29. Dr. Ford's testimony was brief and summary-level, and the details of Dr. Ford's methodologies are not readily apparent from his testimony or plaintiff's briefing. Dr. Ford testified that the methodology he used is contained in his expert report, however, the report was admitted into evidence with all of the narrative sections redacted.¹⁰ (D.I. 104 at 207:21-208:4; PTX-204) The court declines to accept Ford's testimony on this record and, therefore, finds that plaintiff has not met its burden to prove actual consumer deception.

2. The CS Commercial

a. Establishment claim

30. The court agrees with defendant that the "better coverage" claim of the CS commercial is an establishment claim that is not supported by sufficiently reliable tests. The CS commercial¹¹ plainly states that "[s]imulated coverage study results [a]mong sprays with comparable SPF" are represented by the blue "coverage" layovers on the two athletes. To this day, plaintiff has never performed an *in vivo* coverage study on

¹⁰Apparently, plaintiff redacted all of the text preceding the "results" portion of Ford's report in response to an objection by defendant prior to trial.

¹¹Both the video clip and frame-by-frame pictorial. (DTX 1; DTX-2)

either sport-labeled spray¹² featured in the CS commercial. Plaintiff has only performed *in vivo* testing on the Coppertone Ultra-Guard® (SPF 50) and Neutrogena® Fresh Cooling Mist® (SPF 45) sprays. (D.I. 104 at 369:5-14) Those tests involved female subjects. (*Id.* at 370:6-8)

31. The blue layover in the CS commercial is directly derived from photographs taken from the Coppertone Ultra-Guard® and Neutrogena® Fresh Cooling Mist® *in vivo* studies. Those *in vivo* studies were completed at cyberDERM Clinical Studies ("cyberDERM"), an independent company. (PTX-127) After applying sunscreen according to provided instructions, UV photographs were taken of the female subjects' abdomens and backs. (D.I. 104 at 321:10-17) The photographs were graded using three parameters to measure coverage: evenness, density, and thoroughness.¹³ (*Id.* at 322:21-323:12) Coppertone outperformed Neutrogena in only the density category. (*Id.* at 336:16-25) Anna Erixon ("Erixon"), plaintiff's full-time clinical research consultant for sunscreens, testified that a sunscreen that is better with respect to density (even if equal to another in evenness and thoroughness) will provide better coverage to the consumer. (*Id.* at 337:1-9)

32. After the in vivo study, plaintiff conduced an in vitro study (via cyberDERM)

¹²The court dismisses plaintiff's suggestion that the commercial is not literally false because it contrasts "Neutrogena spray," as compared to "Neutrogena Sport" or "Neutrogena Ultimate Sport®." The commercial plainly compares two different "sport" sunscreens, claiming that "[y]ou give your sport 100% – so should your sunscreen." Coppertone Sport® is depicted on the athlete as "Coppertone spray;" the plain import of "Neutrogena spray" in this context is also the sport-branded version.

¹³Density referred to "the amount of product" on the skin; evenness referred to consistency of that density across the surface; and thoroughness referred to whether a subject "miss[ed] a spot." (D.I. 104 at 322:25-323:7)

in which a robotic apparatus was utilized to spray sunscreens onto a cardstock substrate. (PTX-131) Sprays generated from full cans of Coppertone Sport®, Neutrogena Fresh Cooling Body Mist® and Neutrogena UltraSheer Body Mist® spray sunscreens (at three comparable SPF levels) were evaluated. (*Id.*; D.I. 104 at 343:21) Plaintiff found that Coppertone sprays deposited "two to three times" more product than the Neutrogena sprays. (D.I. 104 at 341:18-25; PTX-116)

33. Erixon testified that the testing confirmed that the results of the *in vivo* study were reproducable across multiple products in the first *in vitro* study and, as a result, plaintiff utilized the results from the *in vivo* study to make the CS commercial. (D.I. 104 at 348:23-350:21) Plaintiff selected UV photographs from the *in vivo* study that represented the mean and standard deviation for coverage density for Coppertone Ultra-Guard® and Neutrogena Fresh Cooling Mist®. The color from the two representative photographs was changed from (original) purple to blue (to avoid the look of sunburn) and overlaid with the male athletes in the CS commercial. (*Id.*)

34. It is undisputed that, as of the date the commercial aired, plaintiff had not tested either Coppertone Sport® or Neutrogena Ultimate Sport® sprays in an *in vivo* study. (*Id.* at 363:12-25) The two photographs in plaintiff's commercial did not, therefore, represent actual data regarding either product in that advertisement. Erixon agreed that "neither photograph from [the] commercial represents what a Coppertone Sports or Neutrogena® Sports spray would look like according to the methodology that [plaintiff] used." (*Id.* at 364:3-6)

35. Erixon testified that plaintiff did not test Neutrogena Ultimate Sport® spray because it only selected sprays with "comparable SPFs." Neutrogena® Ultimate

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Sport® came in a SPF 55 and SPF 70 spray; it is unclear why this was not comparable to plaintiff's SPF 50 and SPF 70 sprays in the CS commercial. (*Id.* at 365:10-16) Erixon also stated that only the "best selling products" were selected. (*Id.* at 366:3-6) Regardless of the reason, plaintiff elected not to test Neutrogena's sport-branded spray,¹⁴ yet it ran a head-to-head advertisement comparing its own sport spray sunscreen with Neutrogena's.

36. In response to the present litigation,¹⁵ plaintiff commissioned a second *in vitro* study to compare Neutrogena Ultimate Sport® SPF 55 and 70 and Coppertone Sport® SPF 50 and 70 sunscreens. (D.I. 97 at 18; D.I. 104 at 352:21-353:12) Erixon testified that the results of this second study were comparable to that of the first; similar differences between the Coppertone and Neutrogena sprays were demonstrated [assumedly, in terms of spray density]. (D.I. 104 at 354:12-16) Erixon does not consider this second *in vitro* test support for the CS commercial (which had already run by this point), but would consider it supportive of future advertisements. (*Id.* at 355:21-356:6)

37. The issue at bar is whether plaintiff's *in vivo* testing of Coppertone Ultra-Guard® and Neutrogena Fresh Cooling Mist®, in view of its *in vitro* testing on Coppertone Sport®, Neutrogena Fresh Cooling Body Mist® and Neutrogena UltraSheer

¹⁴Plaintiff states (in a footnote) in its papers, without citation, that "[t]he Neutrogena® Ultimate Sport® spray products were not on the market at the time of the *in vivo* study." (D.I. 94 at 23, n.19) Erixon testified to the contrary. (D.I. 104 at 365:11-21) Even if plaintiff were correct, it is of no benefit to plaintiff's case that it ran an advertisement against an unreleased product without having tested that product as its commercial claimed.

¹⁵The protocol for this study is dated November 12, 2009. (*Id.* at 353:19-20)