

Exhibit 10
(Submitted Under Seal)

Subject: Re: Corning tempered glass for N82 DITO

Date: Sun, 06 Jan 2008 18:28:09 +0000

From: "Casey Feinstein" <feinstein@apple.com>

To: "Tang Yew Tan" <tтан@apple.com>

CC: "Jason Otonshi" <otoshi@apple.com>, "Lynn Youngs" <lyoungs@apple.com>, "Bob Bainbridge" <bainbridge@apple.com>, "Priya Balasubramaniam" <priyab@apple.com>, "Steve Hotelling" <shotelling@apple.com>, "Ben Kunst" <bkunst@apple.com>, "Amy Han" <aim@apple.com>, "Mark Hamblin" <mhamblin@apple.com>, "Erik Wang" <ewang@apple.com>, "Jason Huey" <jhuey@apple.com>, "Richard Dinh" <rdinh@apple.com>, "Shin John Choi" <shinjohn@apple.com>, "Stephen Zadesky" <szadesky@apple.com>, "matt riedstra" <mriedstra@apple.com>

Message-ID: <81E1D4FE-872C-48CC-B399-79E17A742371@apple.com>

Hi Tang,

The grape team is still pursuing Corning DITO glass in M68. The issues involve schedules, supply chains, and some process development.

First, we do not have a chemical strengthening process that will work for Corning DITOs. The CG process is too aggressive to work with laser scribe. Corning is doing some experiments to develop the correct CS process now, with initial sample sheets to ship on 1/9 and 1/18 (the schedule for this is based on the fact that their bath has to be diluted for our process, so they needed to stop standard processing for some time). These samples will be sent out for laser scribe process development, but can only be made into non-functional DITOs since the Corning CS bath is too small to handle sheets that are compatible with our thin film line. Module assembly will have to be more manual, since no alignment marks will be on these pieces of glass. There are also some capacity and schedule issues at the laser scribe supplier, and we are pushing to have them treat this project as a higher priority to speed it up.

To build functional modules we'll need to transfer the new CS process to a new vendor that had large sheet capability, or wait for Corning to install a new large bath (estimated Feb.) Since the bath is diluted relative to a "standard" Corning CS process, using their facilities may not be a viable high-volume solution. Corning glass can be strengthened to much greater depths than soda-lime, so while our current process is self-limiting and therefore very forgiving, the new CS process parameters must be controlled very carefully, which makes the transfer to a new supplier a nontrivial matter.

As I mentioned above, we are still working on pulling together all the necessary pieces to evaluate Corning DITO. Please note that the N82 results showed a CS/non-CS difference for impact testing where the

fractures originate in the center of the glass, but not in system drop. Given the bezel to edge impact failure mode for M68 drops, I still suspect that the improvement using Corning glass for this problem will be smaller, though the potential gains in ball drop strength may be significant with Corning.

Thanks,
Casey

On Jan 5, 2008, at 6:16 PM, Tang Yew Tan <ttan@apple.com> wrote:

> Casey and Matt,
>
> Please elaborate why "DITO preparations were much more complicated
> than expected."
>
>
> Lynn,
>
> the N82 EVt1 Rel results showed that CS DITO performed much better
> than non-CS. We mentioned to Tony during N82 EVT1 DMR on 1/3 that
> there might be further potential upside when we start testing
> Corning CS. We had thought that Grape team was still pursuing
> Corning CS, as was agreed to in Oct 2007 (3 months back!). Why
> wasn't this brought to our attention sooner?
>
>
>
> Tang Tan
> iphone product design
> manager
> o: +1 408 974 2305
> f: +1 408 862 5080
>
> On Jan 5, 2008, at 4:53 PM, Jason Otoshi wrote:
>
>> Adding Matt;
>>
>> Tang,
>>
>> After the grape team dug further into this issue, it became
>> apparent that obtaining Corning CS glass for DITO preparations were
>> much more complicated than expected. There are a variety of
>> reasons, but I do not wish to go into details by email. My
>> suggestion, if you are interested is to contact either Matt
>> Riedstra or Casey Feinstein for the details, as they are driving
>> the M68 investigation.
>>
>> The short story for N82 was that the Grape team, decided that the

>> initial push should be to initiate an investigation to get the CS
>> Corning glass into M68, to work the known problem. The N82 team
>> would then utilize the processes and suppliers used for the M68
>> investigation.
>>
>> As I mentioned, if you would like to know more details about some
>> of the complicating factors, please contact either Matt or Casey.
>>
>> Jason
>>
>> On Dec 27, 2007, at 11:26 PM, Tang Yew Tan wrote:
>>
>>> Jason,
>>>
>>> Any update on getting Corning CS glass DITO samples for N82? Have
>>> not seen the schedule that you promised on 11/23.
>>>
>>>
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>>> On Nov 23, 2007, at 11:35 AM, Jason Otoshi wrote:
>>>
>>>> Adding Casey.
>>>>
>>>> Tang,
>>>>
>>>> I will press this. I have already contacted Corning, and will
>>>> push to get samples in with one of our EVT1 vendors. I will get
>>>> together with Casey Feinstein (who is coordinating our CS
>>>> studies) and we will develop a schedule.
>>>>
>>>> Jason
>>>>
>>>> On Nov 21, 2007, at 9:38 PM, Tang Yew Tan wrote:
>>>>
>>>>> Jason,
>>>>>
>>>>> Please make this happen soon. Preferably towards the tail end of
>>>>> EVT1. Tony F is now pushing to understand if there is any
>>>>> benefit to using Corning CS DITO on N82 & M68, per 11/15 Jeff W
>>>>> M68 Quality meeting.
>>>>>
>>>>> Grape team needs to communicate schedule for these samples.
>>>>>
>>>>>

>>>>> I would also like to add one extra config: run CS AFTER glass
>>>>> cut step. I know there is some concern about DITO and CS, but we
>>>>> should try.

>>>>>

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>>>>>

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>>>>> On Nov 21, 2007, at 3:18 PM, Jason Otoshi wrote:

>>>>>

>>>>>> Tang,

>>>>>>

>>>>>> I have not made much progress on this. I began the digging
>>>>>> with Corning, and then left for our EVT1 build. We are almost
>>>>>> completed with our build and so I will be able to work on this
>>>>>> next week.

>>>>>>

>>>>>> Jason

>>>>>>

>>>>>> On Nov 21, 2007, at 12:51 AM, Tang Yew Tan wrote:

>>>>>>

>>>>>>> Jason,

>>>>>>>

>>>>>>> Have you communicated the schedule for the N82 Corning CS DITO
>>>>>>> glass?

>>>>>>>

>>>>>>> This was brought up by Tony F at last week's iPhone quality
>>>>>>> meeting with Jeff.

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>>>>>>> On Oct 25, 2007, at 6:29 AM, Jason Otoshi wrote:

>>>>>>>
>>>>>>> Adding Shin John;
>>>>>>>
>>>>>>> Tang,
>>>>>>>
>>>>>>> Thanks for providing the presentation.
>>>>>>>
>>>>>>> Can you please include Shin John Choi to the meeting on
>>>>>>> Monday. He is the PD lead for N82 Grape.
>>>>>>>
>>>>>>> Jason
>>>>>>>
>>>>>>> <Protective Glass for mobile displays - Apple 10 15 07.pdf>
>>>>>>>
>>>>>>> On Oct 24, 2007, at 7:40 PM, Tang Yew Tan wrote:
>>>>>>>
>>>>>>>> Jason, Ben and Amy, (I removed a bunch of spectators)
>>>>>>>>
>>>>>>>>> Tang, my understanding is that there was a presentation
>>>>>>>>> given by Corning to Apple. Can you please forward that to
>>>>>>>>> the Grape Team?
>>>>>>>>
>>>>>>>>> enclosed is the Corning presentation. the comparison starts
>>>>>>>>> from pages 11. Please limit the distribution of this
>>>>>>>>> document. (I think you guys can figure out the competitors
>>>>>>>>> by the first alphabet)
>>>>>>>>
>>>>>>>>> I have also created an N82 design walk-thru with the Grape
>>>>>>>>> team on Monday 4pm. (check MM)
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>>>>>>>>
>>>>>>>>> <Protective Glass for mobile displays - Apple 10 15 07.pdf>
>>>>>>>>
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>>>>>>>>
>>>>>>>>> Thanks,
>>>>>>>>
>>>>>>>>> Tang Tan
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>>>>>>>> On Oct 24, 2007, at 3:12 AM, Jason Otoshi wrote:

>>>>>>>>

>>>>>>>> Tang, all;

>>>>>>>>

>>>>>>>> Sorry to jump into this late.

>>>>>>>>

>>>>>>>> I do not believe we have time to add this to the N82 Grape

>>>>>>>> EVT1 build currently. We already have material ordered,

>>>>>>>> and with the early delivery of Grape to iPEG (two weeks

>>>>>>>> ahead of FATP), we are already pressed for time.

>>>>>>>>

>>>>>>>> I will begin investigating a feasible schedule to implement

>>>>>>>> this idea.

>>>>>>>>

>>>>>>>> I agree with Bob that we would like to see more qualitative

>>>>>>>> data that shows the advantages of this CS Corning Glass.

>>>>>>>> It would be helpful to see the results of the N82 drop

>>>>>>>> testing that has been conducted to date.

>>>>>>>>

>>>>>>>> Tang, my understanding is that there was a presentation

>>>>>>>> given by Corning to Apple. Can you please forward that to

>>>>>>>> the Grape Team?

>>>>>>>>

>>>>>>>> Thanks,

>>>>>>>> Jason

>>>>>>>>

>>>>>>>> On Oct 23, 2007, at 5:47 PM, Tang Yew Tan wrote:

>>>>>>>>

>>>>>>>> Bob and Duco,

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>>>>>>>> Bob and I just had a quick chat with Jeff, and we're all

>>>>>>>> in agreement that we should include CS Corning Glass as

>>>>>>>> one of the glass options for N82 DITO.

>>>>>>>>

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>>>>>>>> Grape team,

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>>>>>>>> Can you guys help put a schedule around this Corning DITO?

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----- end message -----