

Sapphire talk enlivens guesswork over iPhone 6

July 27 2014, by Nancy Owano



Sapphire screens for the next iPhone? Sapphire is second only to diamond in hardness scratch-proof properties, used in making LEDs,

missiles sensors, and on screens for luxury-tier phones. Last year, the budget-conscious rubbed their eyes when learning that a debut Vertu Ti phone with sapphire cost around \$10,500. Now that recent talk has started circulating over what Apple's next iPhone might be like, the word "sapphire" resurfaces but this time with a more affordable twist. While Apple is not known for bargain pricing, sapphire is not likely to make a painfully dramatic price impact.

Accompanying plenty of talk about sapphire in the iPhone 6, what you may see upon product introduction is "some kind of sandwich material that packs nearly the strength of pure sapphire, while cutting down on [weight](#) and cost," wrote Robert Sorokanich in Gizmodo.

Tech watchers adding comments to the iPhone6 rumor mill say the iPhone 6 screen could be a-composite material that involves sapphire. Tech reviewer Marcus Brownlee has examined a purported "iPhone 6" sapphire display panel. The display was rigorously tested to see if any scratches would occur. He showed how the new material was indeed very tough and will hold up a lot better than the iPhone 5s display but not entirely invulnerable. In his video posted to YouTube, the purported "iPhone 6" cover glass showed some, though not dramatic, scratches from sandpaper in Brownlee's sandpaper tests. Brownlee, said he believed the display is not pure sapphire, but a composite involving sapphire.

As important, said Brownlee, this mixed-material screen actually makes sense. First, he stated, the use of pure sapphire for the panel for the front of the phone would be a bit stupid, because it would be much more expensive. Second, the use of pure sapphire would not allow the material to bend as it did in his workout. "Pure sapphire is best in small parts like the touch ID cover over the home button," he commented, but not ideal for the full screen display.

According to Patently Apple, "On September 12, 2013, the US Patent & Trademark Office published a patent [application](#) from Apple that reveals their intention to add a sapphire laminate to future iDevices like the iPhone and iWatch to provide a stronger glass that is ultimately scratch resistant," said the report. The report pointed out that Apple's iPhone 5S Home button is made from laser-cut sapphire crystal

Meanwhile, a report by Kevin Bullis in Friday's Technology Review said that GT Advanced Technologies showed him "a new manufacturing process that [produces](#) inexpensive sheets of sapphire roughly half as thick as a human hair, making it possible to add a tough layer of [sapphire](#) to just about any smartphone or tablet screen relatively cheaply."

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