

Brodie Gilmour

Shattering the Myth

Corning's Gorilla Glass is not
all it's cracked up to be

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Think your iPhone is made up of exclusive Apple technology? Think again.

iPhone screens are made from Gorilla Glass which is manufactured by Corning. Corning has a global reputation of manufacturing the strongest and best glass screens in today's market. Formulated with a complex ion-exchange process, the glass has gone through a variety of experiments to test its durability. Corning claimed that the glass is shatter proof 80% of the time when dropped from between 1-1.6 metres. The tests are conducted by dropping a phone screen down onto a rough surface. However the tests don't simulate real life. In the test a machines arm holds the phone until it is just above the ground before releasing it, making it level when it hits the ground. This is known as a flat drop test. This is unlike dropping your phone normally. The most common drops come from phones tumbling and spinning before they hit the ground. The only drop test Corning use for statistical and marketing purposes is the flat drop test. They do not test for drop breakages on the sides or corners of phones. It would be very

rare for a phone to be dropped with an even balance as it hits the ground.

Motorola, a rival phone company of Apple, looked into some issues regarding phone screen shattering (2015). Their statistics are on all phones, not just iPhones, and the results are interesting. They surveyed across the United States, Brazil, India, United Kingdom, Mexico and China and combined the averages. Motorola found that 50% of all phone screen breakages resulted from phones falling out of peoples' hand, making it the most common. This was followed by 32% of phones falling out of pockets and 27% out of laps. These results correlate with Corning's research, as they found that their top two complaints from consumers were damaging drops and scratches on the glass.

Interestingly, Apple do not openly admit to using Corning's Gorilla Glass on their iPhones. It is common fact online that they do, and it's not a well-kept secret. It is said

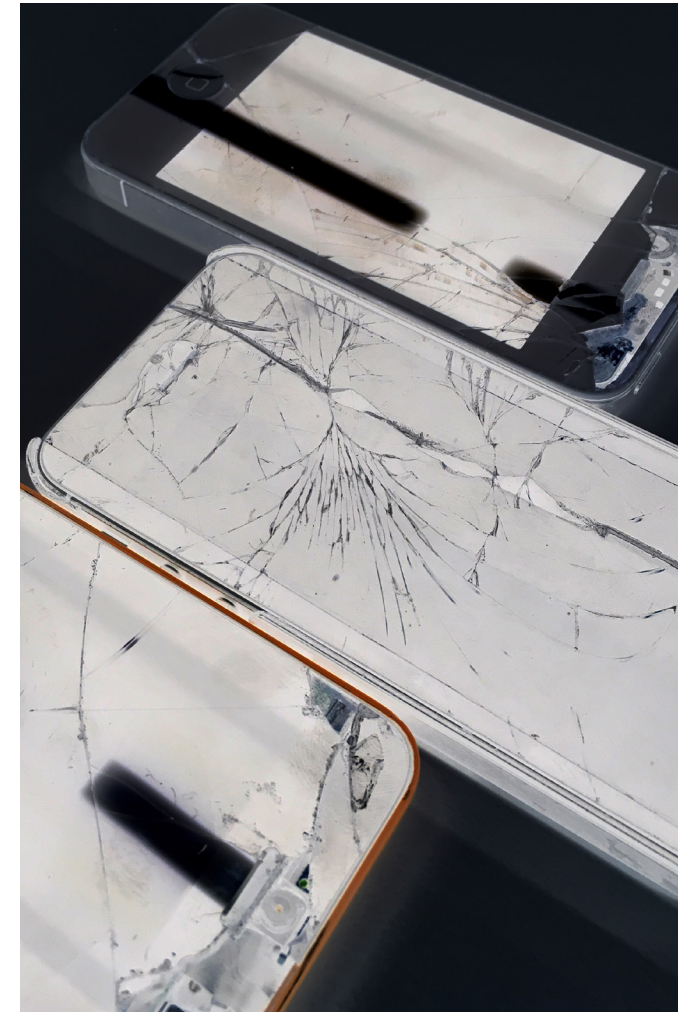
that Apple have used Gorilla Glass since the very first iPhone. On their website in the newsroom section there is an article titled 'Apple awards Corning first Advanced Manufacturing Fund investment' which details Apple's \$200 million investment into 'revolutionary glass production methods.' They don't deny it, but they don't openly admit to using Gorilla Glass.

As visible on Corning's website, all major phone manufacturers use Gorilla Glass. This includes Samsung, HTC, Nokia, LG and Sony. This weakens Apple's reputation of being different, better and luxurious as they use the exact same glass screens as their competitors. LG and Sony are known for having more affordable phones. This is possibly why Apple is reluctant to admit their use of Gorilla Glass as there is no difference between them and their competitors.

Planned obsolescence also comes into play. Are Apple purposely not fixing their

biggest fault? It is said that between 1 and 2 billion dollars in revenue comes from iPhone repairs each year. That's a significant chunk of the 4 billion revenue of phone repairs globally. Apple charge a significant mark-up on repairs and screen replacements, usually charging consumers \$130 for a \$40 repair. This has led to the increase of third party businesses fixing cracked screens as they charge a more affordable price. However this voids the Apple warranty and is a lose-lose situation for consumers. Instead, many choose to buy the next upgraded phone which is a win-win for Apple.

There is nearly no denying that Gorilla Glass is the best on the market. But is it as good as they make it out to be? From Corning's questionable flat drop testing to Apple not overtly promoting its use, it appears that consumers are left in the dark. Companies should be more transparent with their consumers about what technology is used on their devices.



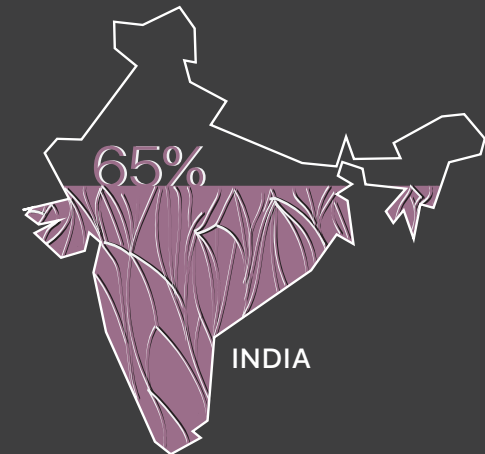
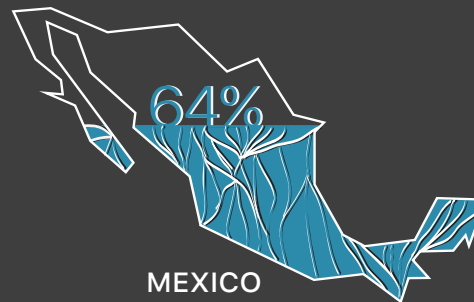
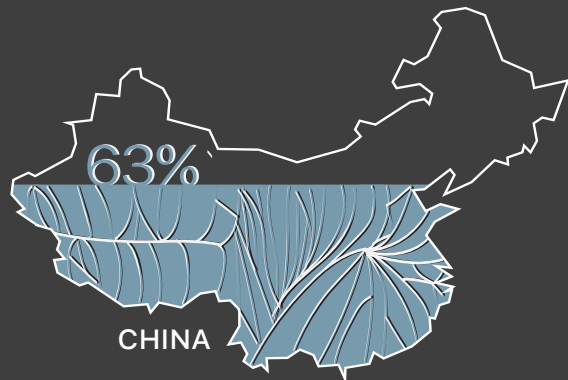
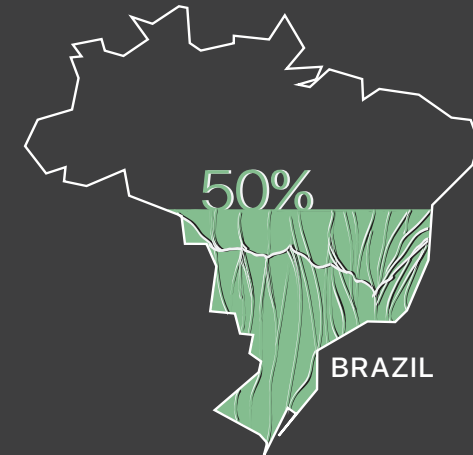
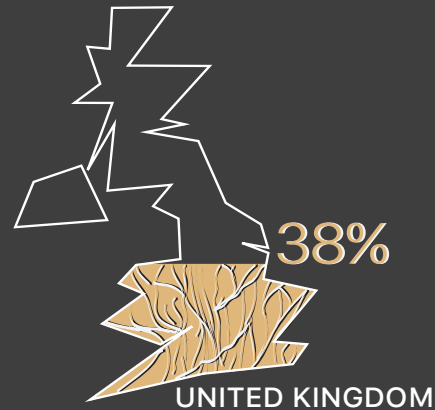
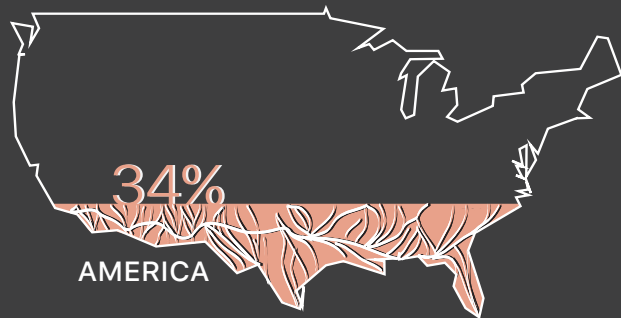
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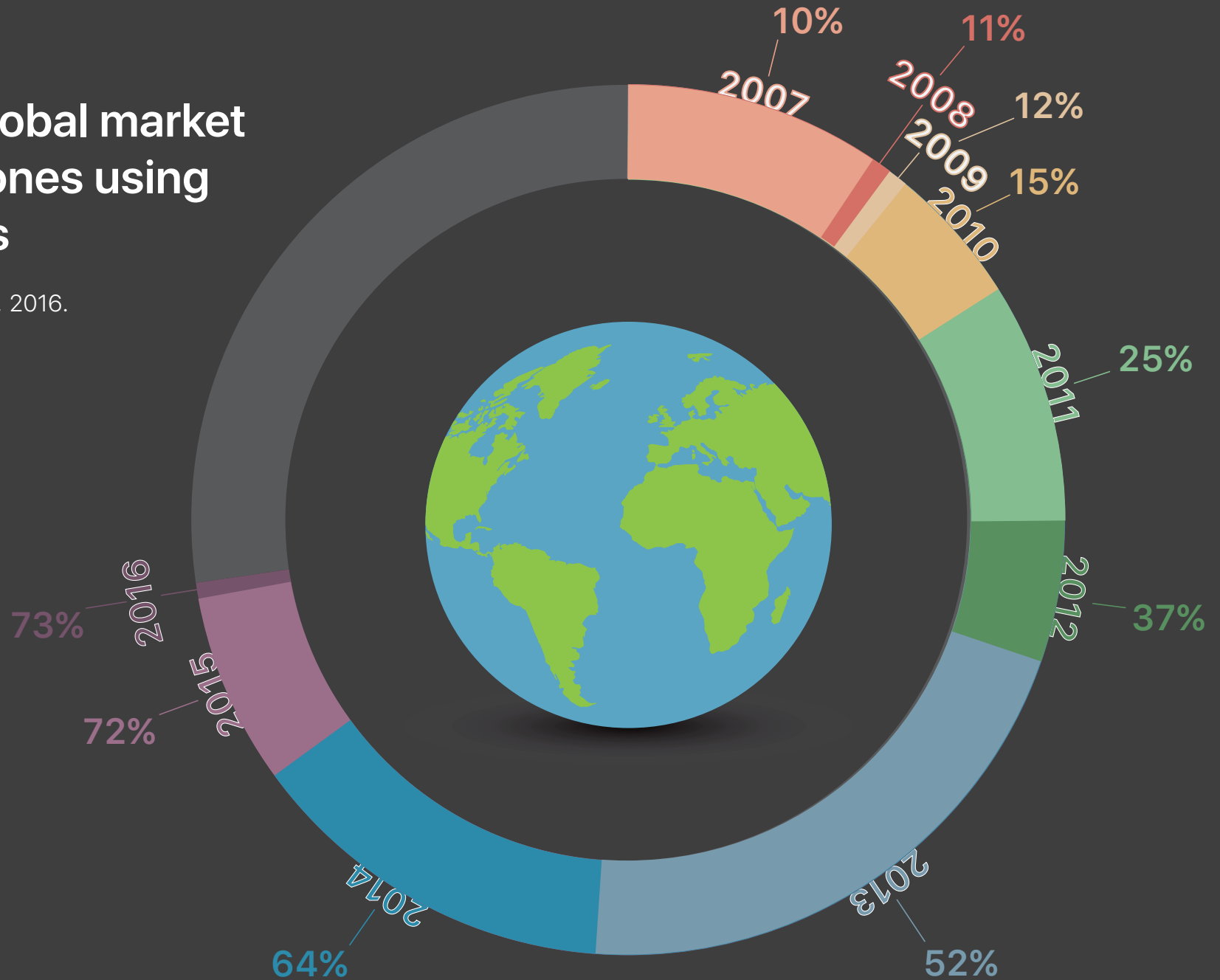
Percentage of smartphone users that have experienced a cracked or shattered phone screen

Statistics from Motorola, 2015.



Corning's global market share of phones using Gorilla Glass

Statistics from Corning, 2016.



Number of smart phones using Gorilla Glass

Statistics from Corning, 2016.

