

Pray Attapattu & Isabella Valenti

It's fine! It's "waterproof"

Is it really? Did you read the fine print?
The truth behind the water resistant
feature.

It's Fine! It's "waterproof"

Pray Attapattu & Isabella Valenti

Is your iPhone really good with water?

As great as water resistant properties sound, this made many people misunderstand the difference between waterproof and water resistance.

Before we get into it, let's go through the difference between waterproof and water resistant. Waterproof is when an object upholds its composure no matter how long it is submerged or come in contact with water. Water resistant, on the other hand, means that the object can withstand water to some degree.

Apple's iPhone 7 began an interesting feature; water and dust resistance. When the iPhone 7 was released, it startled the world as the headphone jack vanished and a universal port appeared. This major change allowed for water resistant properties to emerge, and gave apple a good marketing pitch to boost their sales.

How is this tested? Apple's iPhones have been given IP ratings which ultimately means that they have been tried and tested to withstand common everyday liquids.

So, this brings great limitations to what the iPhone can withstand.

Let's clear things up, iPhone 7, 7 Plus, iPhone 8, 8 Plus, iPhone X, XR, XS, XS Max, iPhone 11, 11 Pro and 11 Pro Max are all water resistant. Yes! resistant.

All these phones were given an IP rating which is known as International Protection or Ingress Protection. These ratings determine how good a solid product reacts against water, or is able to repel water. The first digit represents protection against solid particles while the second digit is the protection against liquids.

iPhone 7, 7 Plus, iPhone 8, 8 Plus, iPhone X and XR are given an IP rating of IP67. IP67 essentially means that the stated devices can be submerged in 1m of fresh water for 30 minutes, before the phone starts to lose its ability to hold off water.

iPhone XS, XS Max and iPhone 11 are given an IP rating of IP68. This rating is better, as



it can be submerged in 2m of fresh water for 30 minutes.

The iPhone 11 Pro and 11 Max are given the same rating of IP68, however the maximum depth for these two is 4m for 30 minutes.

How does apple make these iphones water resistant? There are many elements such as rubber rings in the sim card and aux port, lots and lots of glue. They close every hole with gaskets and mesh within the device to protect the interior, unfortunately this wears off over time and defeats the purpose of being water resistant.

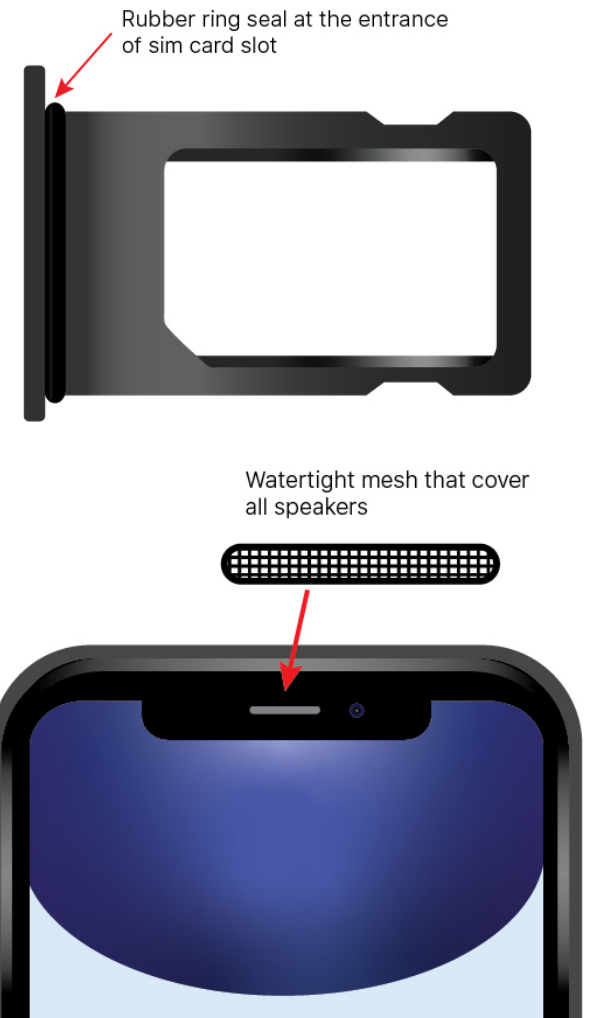
So, you may think that this calls for a great selfie with your friends at the beach. No, in fact salt water, as well as other liquids such as chlorine in swimming pools, are a danger zone to these iPhones.

The liquids that IP rating tests against are accidental spills; common liquids such as fresh water, soda, coffee, tea, beer and juice. If your iPhone just happens to be

covered in beer, then it needs to be rinsed with clean water, wiped and then dried before using it once again.

Apple has given many tips on how to avoid these spills, as their warranty does not cover liquid damage. The tips they have provided are to avoid swimming or bathing with your iPhone, Intentionally submerging your iPhone in water and avoid exposing the device to high pressurised water. They have also mentioned that the water resistant feature is not permanent and can deteriorate over time with normal use. So if Apple suggests not to dunk your expensive device in a pool full of chlorine, then it's probably wise to listen to them.

Apple always wants elements to promote themselves and get a sale, so it'd be best to take apples selling tactics with a grain of salt and not believe that your phone being water resistant will last, because there is no such thing as a phone to always be water resistant.



References:

Apple. (2019). About splash, water, and dust resistance of iPhone 7 and later. Retrieved from <https://support.apple.com/en-au/HT207043>

Hollister, S. (2016). Waterproofing explained: How Apple, Samsung and Sony keep the liquid out. Cnet. Retrieved from <https://www.cnet.com/news/how-does-waterproofing-work-apple-iphone-7-samsung-galaxy-s7-sony-xperia/>

CNBC. (2019). Is The iPhone Waterproof? Water Resistance Explained [Video file]. Retrieved from <https://www.youtube.com/watch?v=4dyL6hMZvWQ>

DFA Media Ltd. (2014). IP ratings and what you need to know.(Special Focus). Plant & Works Engineering (Issue 383). Retrieved from <https://go-gale-com.ezproxy.uws.edu.au/ps/ido?&id=GALE|A369176541&v=2.1&u=uwsydney&it=r&p=ITBC&sw=w>

Fingas, R. (2016). How Apple achieved water resistance with the iPhone 7 and iPhone 7 Plus. appleinsider. Retrieved from <https://appleinsider.com/articles/16/09/12/how-apple-achieved-water-resistance-with-the-iphone-7-and-iphone-7-plus>



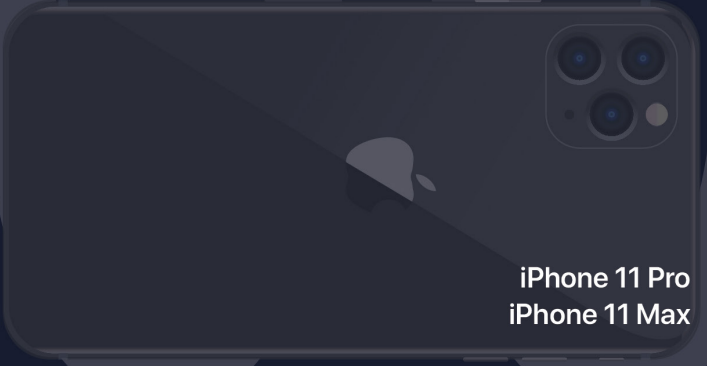
iPhone 7
iPhone 8
iPhone 7 Plus
iPhone 8 Plus
iPhone XR
iPhone X

1 metre



iPhone XS
iPhone XS Max
iPhone 11

2 metres



iPhone 11 Pro
iPhone 11 Max

4 metres