

## 9 Futuristic Materials

Written by pimpitcha

Monday, 23 May 2016 11:12 - Last Updated Monday, 23 May 2016 11:16

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In this video explains 9 Futuristic Materials

1. Aerogels : First, they make a gel out of something like silicon or carbon compounds then, they use extremely high temperatures and pressures to blur the line between the liquid and gas phases creating a supercritical fluid.
2. Invisibility Cloaks : In 2015, scientists designed a very, very thin material, like, 80 nanometers thin, that could hide equally tiny objects in order for us to see an object, light has to bounce off of it. any distortions of that light reveal its shape and features. Theoretically, you could adjust the gold antennas to make the reflected light look like any object of background.
3. Superhydrophobic Materials : These materials are so waterproof that water droplets actually appear to bounce off of them, and even split into smaller pieces.
4. aggregated diamond nanorods : This material is made up of many tiny, interlocked diamond crystals rather than one single structure they can be made in the lab by applying extreme heat and pressure to graphite.
5. Metallic glass : So, Metallic glasses form when metal atoms are in this random arrangement like when melted metal is cooled really, really quickly, before its particles can arrange themselves into a crystal.
6. Metallic foam : In general, metal foams are useful for high-tech shock and impact absorbers, the gas inside makes them extremely compressible so they can absorb a lot of mechanical energy, while still retaining some of the strength and durability of a metal.
7. Transparent aluminum : Which means the material starts as a powder, and is then heated up until it melts. Then cooled into a crystalline structure similar to glass.
8. Light-Transmitting Concrete : The translucent concrete maintains most of its strength, so it can still be used for heavy duty. Projects, like constructing buildings or roadways or it can be used in otherwise difficult-to-light areas, like subway tunnels and walkways.
9. Self-Healing concrete : The basic concept is to combine engineering with microbiology, and embed bacteria that can create limestone directly in the concrete.

The Bacteria lie dormant until the water seeping in dissolves the capsules and sets them to work. Eating and multiplying and producing calcite, or limestone, from the calcium lactate, which fills in the cracks

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