

The Ultimate Screen Protection

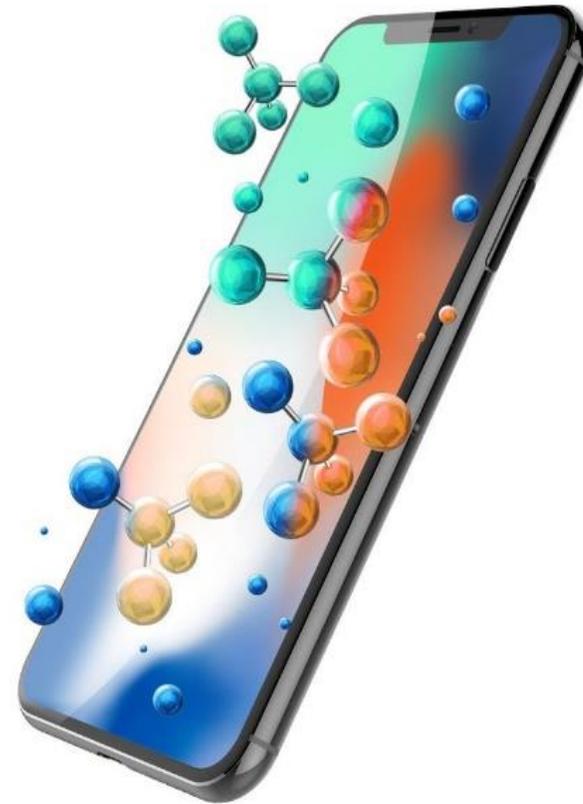
LIQUIDNANO™

SMART COATINGS - GUARANTEED PROTECTION

Industry Best Smart Coating Exclusive Screen Replacement Assurance Guarantee

LiquidNano introduces the Ultimate in Screen Protection, by bundling their newest industry best wipe-on protective smart coating with their Screen Replacement Assurance Guarantee offering replacement coverage from \$150 to \$350 dollars

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Industry Best Smart Coating

LiquidNano is a super durable, completely transparent nontoxic, eco-friendly silica dioxide (SiO²) based protective smart coating that replaces the need for a traditional screen protector.

Designed and formulated specifically to protect smartphones and mobile device screens. Once properly applied, LiquidNano creates a seamless-bond to any mobile device screen at the Nano level which will greatly reduce screen surface scratches, screen-breaks due to an unforeseen drop and can even reduce rain moisture from getting through on mobile devices that don't offer water resistance.

Industry Best Screen Assurance Guarantee

LiquidNano in conjunction with its underwriting partners offer customers a unique Screen Replacement Assurance Guarantee.

Coverage levels range from \$150 up to \$350 against screen replacement costs.

Each pack comes with a unique code which the customer uses to register online at liquidnano.com/warranty.

Registered customers can claim for up to 1 year against screen replacement costs in the event of their screen breaking.

All Liquidnano warranties are independently administered and fully underwritten by an multi-billion dollar global warranty provider.

The Ultimate Screen Protection Industry Exclusive Smart Coating Formula Up to \$350 Screen Replacement Assurance Coverage



The Ultimate Screen Protection Industry Exclusive Smart Coating Formula Up to \$250 Screen Replacement Assurance Coverage



The Ultimate Screen Protection Industry Exclusive Smart Coating Formula Up to \$150 Screen Replacement Assurance Coverage



The Ultimate Screen Protection Industry Exclusive Smart Coating Formula Specifically Formulated to offer Optimal Screen Protection



Undetectable

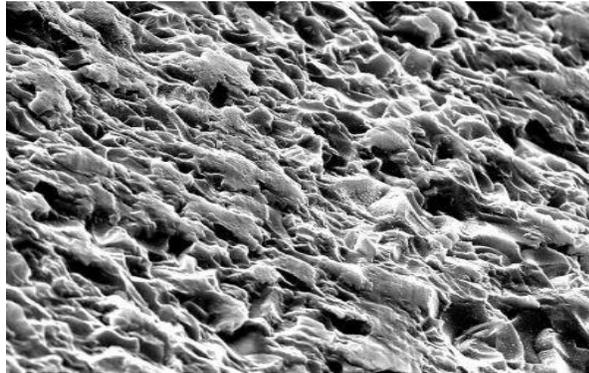
Once Applied
LiquidNano is
Colorless,
Nontoxic, and
Eco-Friendly

Rest assured our smart coatings are colourless, nontoxic, and eco-friendly. Once applied to any smartphone screen it is completely undetectable by the human-eye or to the touch which is the bases for all Nano technologies.

We have designed an easy wipe-on do it yourself application process, by including a pre-moistened towelette with just the right amount of smart coating liquid on it.

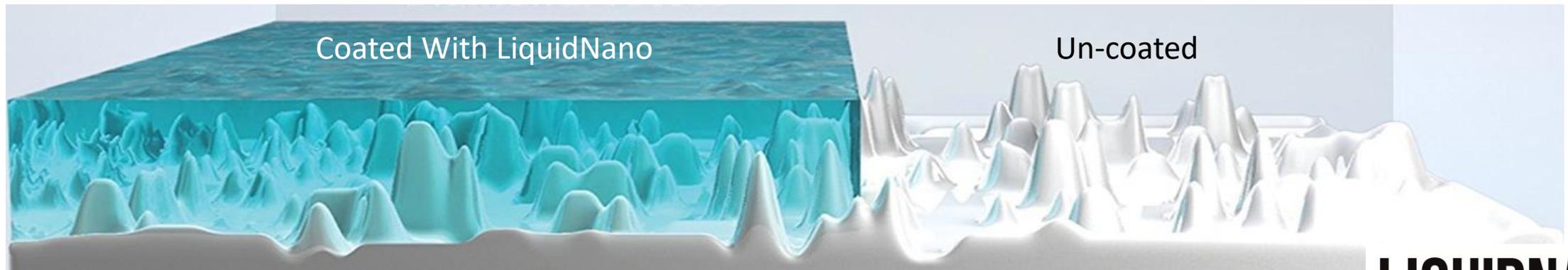
Once you clean your smartphone screen simply apply the LiquidNano smart coating on your screen until its completely covered with the clear smart coating, then simply allow to dry for the directed amount of time.

LiquidNano Technology – The New Alternative



When viewed under a microscope a glass surface is not smooth. It is full of valleys and ridges which can become points of weakness when exposed to external stress through blunt force impact. When LiquidNano is applied the glass particles in the LiquidNano smart coating bond to the devices screen (substrate) and in so doing they fill in these valleys and ridges at the Nano level.

The glass particles in our smart coating are suspended in a solvent and applied by embedding the glass particles onto the glass substrate by wiping or spraying. The solvent then evaporates, and the glass particles remain. This smart coating layer causes a smoothing out effect on the glass which significantly reduces the points of weakness. As a result, the hardness of the coated glass increases with a corresponding increase in durability.



Features and Benefits

Quick Drying Time: LiquidNano fully bonds with 24 hours but devices can be used within 30 minutes.

H9 Screen Hardness: Once applied properly LiquidNano creates a protective glass layer to increase screen hardness to H9 Spec.

Single Application: LiquidNano is highly durable withstanding over 20,000 wipe actions and can last up to two years under normal use.

Hydrophobic/Oleo phobic: Increased water and oil resistance means once LiquidNano is applied the screen is much more resistant to dirt, smearing, and fingerprints.

Technology Explained

Nanotechnology refers to the measurement of matter and the creation of particles at the Nano scale.

A Nano particle is approximately 10 times 10^{-9} of a meter.



It's hard to imagine just how small nanotechnology is but in simple terms one nanometer is a billionth of a meter, so for example

- There are 25,400,000 nanometers in an inch.
- A sheet of newspaper is about 100,000 nanometers thick
- If a marble were a nanometer, then one meter would be the size of the Earth



Matter such as gases, liquids, and solids can exhibit unusual physical, chemical, and biological properties at the Nano scale. These differ in important ways from the properties of bulk materials, and single atoms or molecules. Some nanostructured materials are stronger or have different magnetic properties when compared to other forms or sizes of the same material. Others are better at conducting heat or electricity. They can also become more chemically reactive, reflect light better, or change color, as their size or structure is altered.

Smart Coating Technical Data

Coverage Rate Per Litre: up to 150 - 200m²
(dependent on process)

Shelf Life: 24 months sealed / 6-12 month
once opened

Storage Temperature: 26.6°F - +86°F

Curing Time 24 hours at 68°F (surface usable
after 30 Minutes)

Chemical-resistant except for pH value of 13
or 14

Contact angle: 105 - 108°

Testing Standards Achieved

Test Standard	Test Description
TÜV, MSZ ISO 18593:2008	Microbiological Test
TÜV, MSZ 9640/41:1983	Scratch hardness test with spring ball rod
TÜV, MSZ EN ISO 15184:2013	Pencil Hardness Test
TÜV, Sessile drop method	Water-Repellent, surface tension, contact angles
TÜV, DIN 51 155	Impact Test
TÜV, ICP-MS MSZ EN ISO 17294- 2:2005	Metal content of the wipes
TÜV, ICP-MS + XRF	RoHs screening test
ASTM D 3363	
DIN EN ISO 15184	
BS 3900-E19	Wolf Wilburn Pencil Hardness Test
DIN EX 13523-4	
ISO 10993-1	Biocompatibility Test
ASTM E 2180-07 (Reapproved 2012)	Assessment of Antimicrobial activity (ATCC 6538, 4352 & 15442)
ISO 9001	Anti-Bacterial Test
Martens, Vickers	Hardness Test on Mobile Phone Screens Radiation Test on mobile phone
ISO 11507	Artificial weather with fluorescent UV lamps & water (Method A)
DIN 55620-1+2	Determination of Contact Angle
DIN EN ISO 11998:2008	Determination of wet-scrub resistance & clean ability of coating
DIN 1249 part 12	
DIN18516 part 4	Test Flexural Strength on Safety Glass
DIN EN 12150	

Smart Coatings Liquid Glass

In the last decade, considerable efforts have been made to develop ultra-high-performance Nano coatings. One such Nano coating technology is Liquid Glass.

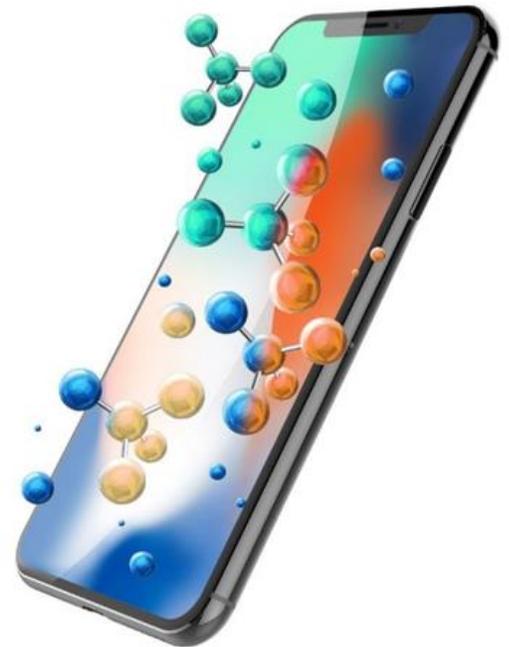
This is where a Nano-scale layer of molecular, particle free glass (500 times thinner than a human hair) is deposited onto the surface of the substrate.

Smart coatings or also known as liquid glass is a truly remarkable, nanotechnology, designed to protect both industrial and domestic surfaces, with an ultrathin super durable coating of invisible, easy to clean glass.

The molecules of glass (silicon dioxide/ SiO_2) come from pure quartz sand, of which there are vast reserves, as silicon dioxide is one of the most abundant compounds on the planet.

Just like domestic glass the coatings are chemically inert and highly resistant to commonly used cleaning chemicals.

The coatings also offer resistance to alkalis, acids and solvents; however, despite some similarities to standard glass, liquid glass smart coatings are stunningly different.



Smart Coatings Liquid Glass

- The layer is flexible, breathable, highly durable, heat tolerant, anti-microbial and offers non-stick and “easy clean” characteristics.
- The application of smart coating/liquid glass to a substrate is amazingly straightforward.
- Significantly most coated surfaces can be cleaned with water alone, this of course massively reduces the use of environmentally damaging cleaning products.



Measuring Screen Hardness

Mobile devices with glass screens are prone to brakeage and scratching. The hardness and thus durability of a mobile device screen is dependent on the type of glass used and the treatment that has been applied to that glass during the manufacturing process.

There are different methods (scales) used to measure how hard a surface is. These include the Mohs relative hardness scale, the Rosiwal absolute hardness scale and the Vickers scale.

Mineral	Mohs relative Hardness	Scratch Test	Rosiwal absolute Hardness	Vickers kp / mm^2
Talc	1	scrapeable with fingernail	0.03	2,4
Gypsum	2	scratcheable with fingern.	1.25	36
Calcite	3	scr. with copper coin	4.5	109
Fluorite	4	easily scr. with knife	5	189
Apatite	5	still scr. with knife	6.5	536
Orthoclase	6	scr. with steel file	37	795
Quartz	7	scratches window glass	120	1,120
Topaz	8	scratches quartz	175	1,427
Corundum	9	scratches topaz	1,000	2,060
Diamond	10	scratches corundum	140,000	10,060

Moh's Scale & Device Glass

The Moh's scale is used to measure the relative hardness of a one mineral against another or more simply how scratch resistant a material is.

This scale is often used in the mobile industry to determine the relative hardness of smartphone screens against scratching.

The Mohs scale ranges for 1 – 10 (with talc at 1 and diamond at 10). Standard glass will have a measure of 5 – 6 on the Mohs scale. Good quality mobile device screens such as those found on Apple and Samsung devices (Corning Gorilla Glass) will have a hardness of about 6- 7 on the Mohs scale.

It is generally understood that the maximum level of hardness that can reasonably be achieved for glass is circa 9 on the Moh's hardness scale.

LiquidNano Performance on Mobiles

Increase in Hardness

30%

Based on numerous videoed destruction tests, our own day to day experience and other independent third-party tests it can easily be demonstrated that a consistent increase of 30% in hardness (Shatter Resistance) is achievable when using the LiquidNano smart coating.

Increase in Impact Resistance

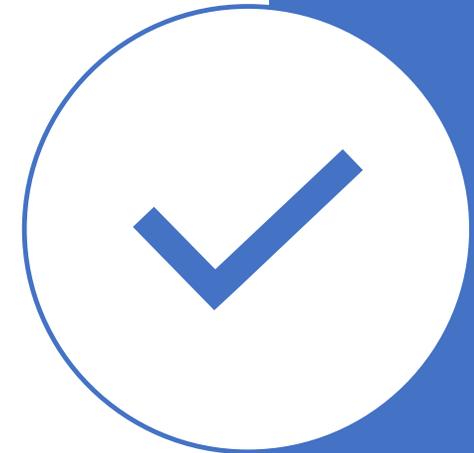
33%

While every device screen has to be tested to destruction repeated testing shows that it takes at least 3 time the number of impacts and an increase of 33% in the impact force to shatter a screen treated with LiquidNano.

Increase in Scratch Resistance

44%

We can also see a dramatic improvement in the level of Scratch Resistance (44%) after application of the LiquidNano smart coating is applied.



LiquidNano Performance on Mobiles

It is important to note that no coating is going to make a phone screen shatter proof or scratch proof. That said on a glass substrate with a Mohs hardness of 6-7 (Gorilla Glass) an increase of 30% or more as achieved by LiquidNano equates to a 9H on the Mohs hardness scale which is thought to be the highest level currently possible for glass.

What this means in real terms is that under normal use and taking into account day to day wear and tear a mobile device screen coated with LiquidNano will withstand significantly more abuse and is much less likely to shatter or scratch then when compared to a similar but untreated screen.

We thank you for your consideration

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