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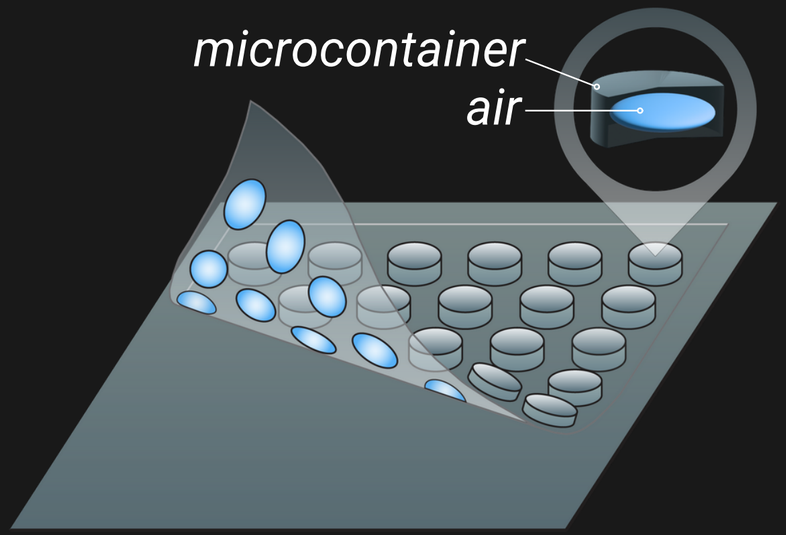
INNOVATIVE TECHNOLOGIES

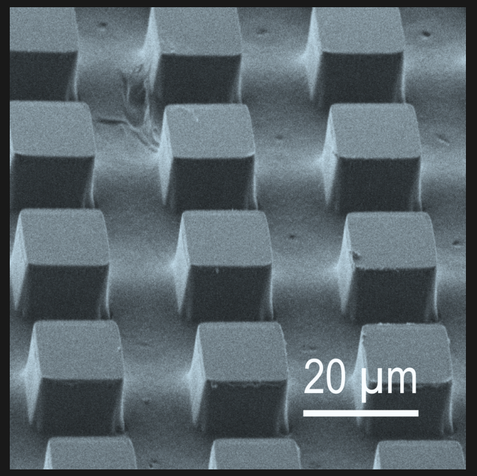
AIR-SATURATED MICROCONTAINER FILM

ULTRA-LOW Dk 1.3-1.5

Made of polymers, our microcontainer air-film is an air-saturated super-structural thermoplastic film formed by an array of regularly spaced air-filled microcontainers.

It looks like Bubble Wrap at a micro- and nanoscale.





Compatible with PCB manufacturing
(sustain high temperatures, pressure and mechanical loads)

Sustainable production
(made from stable proprietary water-soluble PI prepolymers, without organic solvents)

FOR NEXT-GENERATION ELECTRONICS, COMPUTING AND TELECOMMUNICATION DEVICES, SUCH AS 6G/NEXT G

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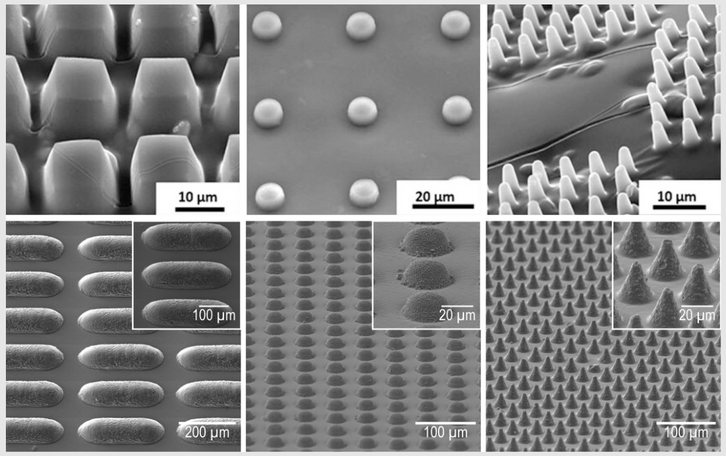
Features



Flexible shape, size and thickness

Any shape, any size (from submicron to hundreds of microns), any array density (spacing between microcontainers can be from a few microns to hundreds of microns), enabling air saturation up to 80%.

Exceptional dielectric constant

Our polyimide air-films have the best on the market dielectric constant of 1.31 - 1.5.

Compatible with PCB manufacturing

Can sustain high temperatures (> 200°C) and pressure required for PCB manufacturing and inherit the mechanical strength of polyimides.

Sustainable production

Made from stable proprietary water-soluble PI prepolymers, without organic solvents.

Controlled printing process

Printed with exceptional precision and structural regularity with minimum defects.

Wide range of polymers

Can be produced from a wide range of polymers (PI, PEI, PEEK, etc.), enabling customisation with respect to dielectric properties, mechanical strength, thermal, chemical, and environmental resistance, and production costs.

Can be rigid or flexible

By varying the production technology, the air film can be made as rigid as steel or flexible (for wearable electronics).

Reduced production costs

Consists of 80% air and only 20% polymer, significantly reducing the production costs as five times less polymers are required.