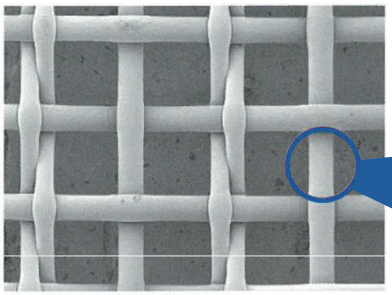
NBC Meshtec
The world's most advanced mesh technology

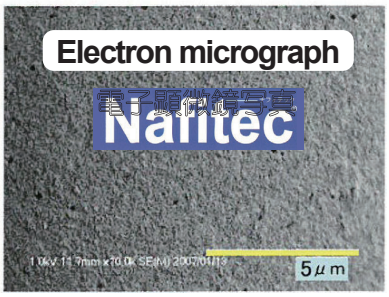
Nafitec®

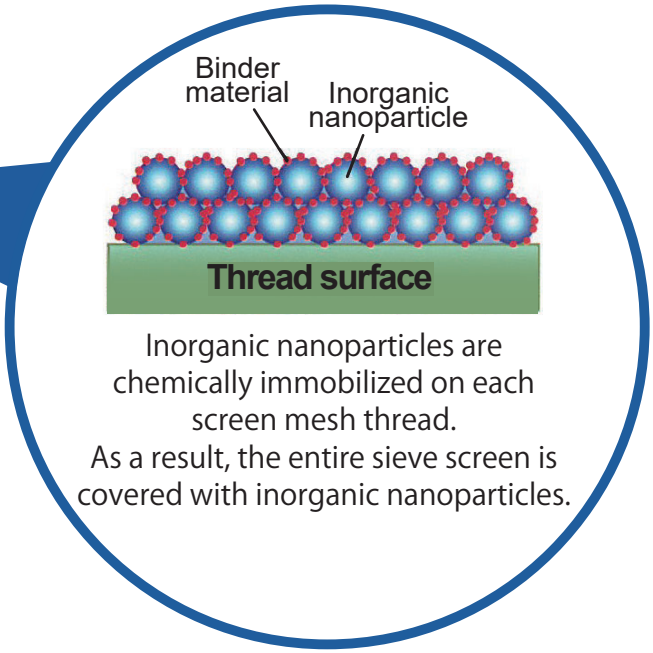
Functional inorganic nanoparticle immobilization technology

Nafitec® is a functional inorganic nanoparticle fixing technology originally developed by NBC Meshtec !

Pattern diagram





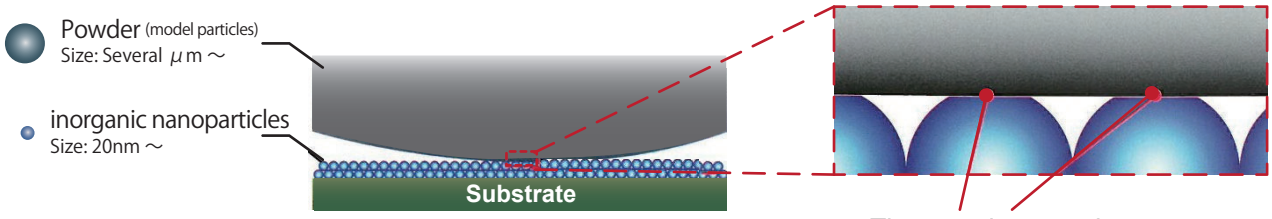


Inorganic nanoparticles are chemically immobilized on each screen mesh thread.
As a result, the entire sieve screen is covered with inorganic nanoparticles.

Nafitec® has nanoparticles fixed chemically on the surface of the screen mesh.

The mechanism of Nafitec® (reasons why powder does not adhere easily to the mesh)

Image when powder adheres to inorganic nanoparticles



The actual contact between the powder and inorganic nanoparticles **can be kept to an absolute minimum**

**Nanoparticles are much smaller than the powder particles. So, when the powder meets the mesh, actual contact between the powder particles and the nanoparticle-covered surface of Nafitec® Sieve Mesh is kept to an absolute minimum.
This prevents the powder from sticking to the Nafitec® Sieve Mesh, minimizing sieve blinding and enabling excellent powder throughput.**

Maximize the effects of nanoparticles
Nafitec®

Compatible Powders

Category	Particle Types	Advantages
Metal Powder	Silver, copper, nickel, metallic silicon alloy, iron powder	• Improves final sieving efficiency (speed) • Improves sieving efficiency (yield) • Reduces sieve blinding andfrequency of screen replacement (Longer service life)
Polymer Powder	Toner, powdered paint, polyethylene (PE) powder, polytetrafluoroethylene (PTFE) powder, cellulose	• Improves sieving efficiency (speed)
Ceramic Powder	Silicon dioxide, aluminum oxide, magnesium oxide, magnesium hydroxide, magnesium carbonate, metal oxide (for battery material)	• IIproves sieving efficiency (speed)
Other	Wheat flour, carbon, titanate, barium titanate, calcium carbonate, talc	• IIproves sieving efficiency (speed) • Reduces maintenance frequency

Actual Adoption: Metal, Toner, Ceramic, Flour, Resin etc.

The specifications of Nafitec® sieve mesh

According to the target powder, 3 types of **Nafitec®** specifications are suggested

Z ⇒ Particle size: Applicable to powders of tens of micrometers or more
S ⇒ Particle size: Applicable to powders of tens of micrometers
F ⇒ Applicable to powder with particle size of 10 micrometers or less

Materials ⇒ Compatible with all materials used for metal, nylon, polyester, and other materials for sieve mesh.

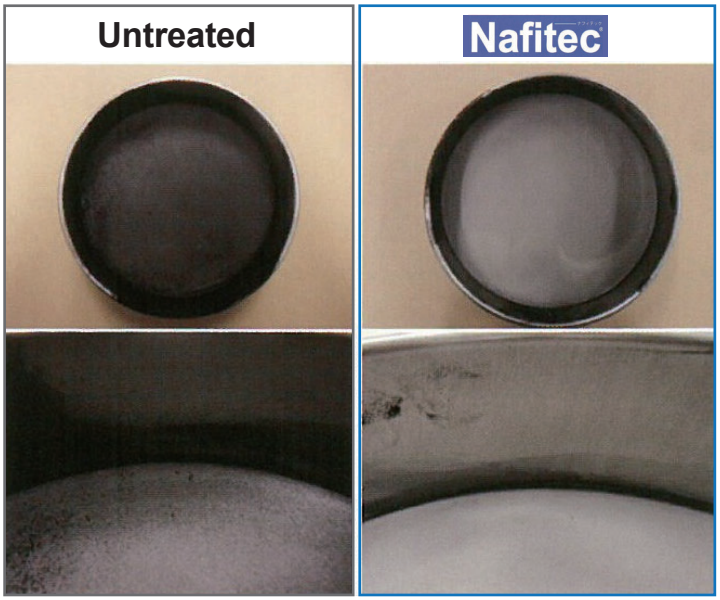
* The particle size is an approximate value. The effect depends on the material and shape of the particles in addition to the particle size. Please contact us regarding selection of mesh screen specifications.

Nafitec® test sieve

Test sieve which adopted Nafitec® technology

Size：φ200
Nafitec® Specification: Z, S, F

Please use it for small-quantity production of powder products, quality confirmation, and testing before trial on mass production machines.



We also offer custom-made products tailored to customer requirements.
Please feel free to contact us.

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