

FLEX-SN AP

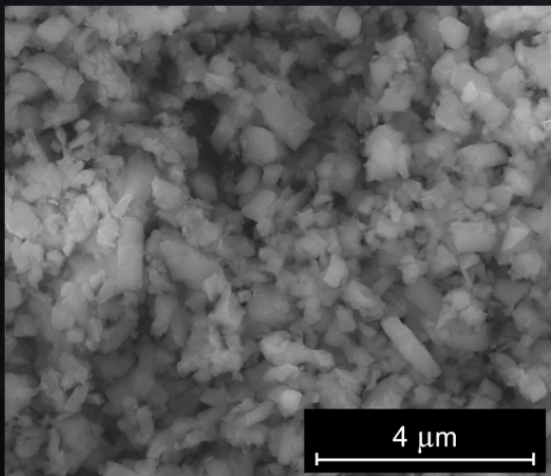
AP² Medical Device Grade Silicon Nitride Powder

AP² is SINTX Technologies' high-quality, biomedical-grade silicon nitride powder. This beta-phase silicon nitride has the same composition, undergoes the same processing, and boasts the same favorable antimicrobial and osteogenic properties as SINTX's MC² monolithic silicon nitride, used in several FDA-cleared implantable medical devices. This makes AP² an ideal additive candidate for implantable and other medical device applications, including 3D-printed polymer composites.

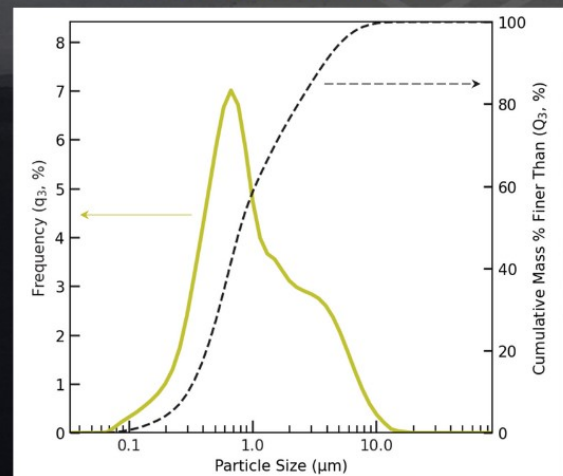
Material Properties

Property	Typical	Units	Test Method
Particle Size, D50	~ 0.8	μm	ISO 13320
Nanoparticles, < 100 nm	< 1	%	ISO 13320
Morphology	Anisotropic	-	SEM
Specific Surface Area	~ 9	m ² /g	BET (ISO 9277)
Specific Gravity	~ 3.26	-	-
Phase Content	100	% β phase	XRD
Isoelectric Point	~ 5.3	pH	-
Biocompatibility	Pass	-	ISO 10993

Scanning Electron Micrograph



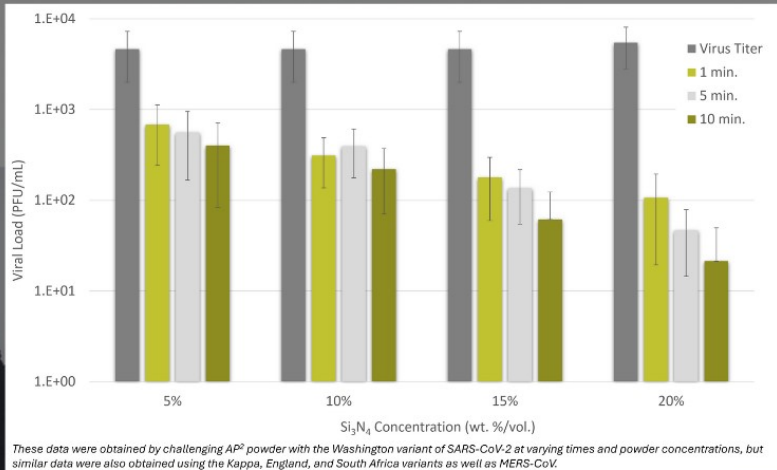
Particle Size Distribution



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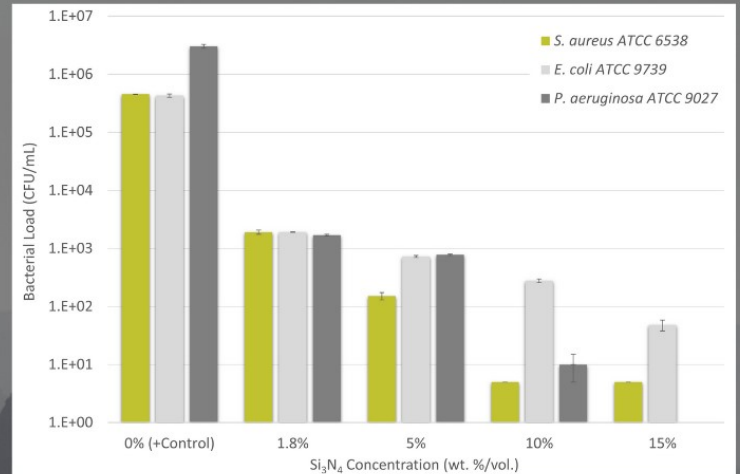
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Antiviral Efficacy



During independent laboratory testing in accordance with ISO 18184, 5 wt. % / volume AP² reduced the viral load of several SARS-CoV-2 strains by 1 log

Antibacterial Efficacy



During independent laboratory testing in accordance with ASTM E2149, 5 wt. % / volume AP² powder in solution inactivated > 99.8 % *S. aureus*, *E. coli*, and *P. aeruginosa*

ABOUT SINTX

SINTX Technologies is an OEM ceramics company that develops and commercializes advanced ceramics for antipathogenic, biomedical, armor, and industrial applications. SINTX frequently works with customers, partners, and manufacturers to help create new, innovative opportunities across these sectors.

Contact Us



References & Studies



MADE IN THE USA



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Patent link: www.sintx.com/resources/patents

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