

HIGHLY TRANSPARENT MICRO TITANIUM DIOXIDE MT-N1



COSMOS
APPROVED

This product is a 8 nm-sized Micro Titanium Dioxide treated with Aluminum Hydroxide and Stearic Acid. It has the world's smallest particle size and is ideal for blending into high transparency mineral formulations. It is also COSMOS certified.

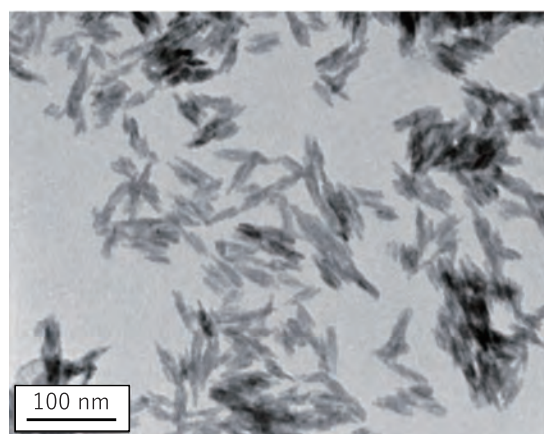
Grade	Primary Particle Size	INCI	EU ※1	China ※2	US ※3	Natural Origin Index
MT-N1	8 nm	TITANIUM DIOXIDE ALUMINUM HYDROXIDE STEARIC ACID	○	○	○	1.00

※1: Regulation (EC) No 1223/2009

※2: IECIC Registration Status

※3: Usability in U.S. OTC Sunscreens

TEM Image

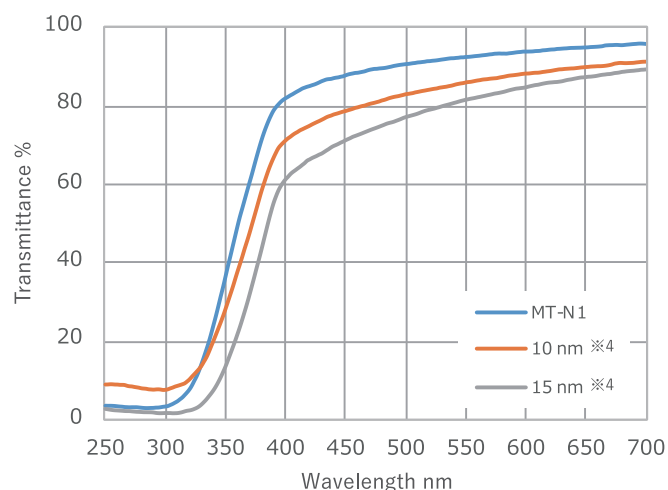


Transparency



Formulation : W/O Emulsion
Dosage : 7 % (as solid)
Application Amount : 2 mg/cm²

Transmittance Curve



Formulation : W/O Emulsion
Dosage : 7 % (as solid)
Film Thickness : 10 μm
Base : Polypropylene Film
Measurement : Spectrophotometer HITACHI U-4100

SPF/UVAPF *in vitro*

Dosage	3 %		5 %		10 %	
Grade	SPF	UVAPF	SPF	UVAPF	SPF	UVAPF
MT-N1	5	4	13	4	27	4
10 nm ※4	4	4	11	4	22	5
15 nm ※4	6	4	13	5	28	5

Formulation : W/O Emulsion
Application Amount : 1.3 mg/cm²
Base : PMMA HD6
Measurement : SPF Analyzer UV-2000S

※4: Aluminum hydroxide, stearic acid treated