

# Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalaremprikiat, Lor 9, Soi 22, Yak 5, Nongbon, Prawet, Bangkok, Thailand 10250

Factory - 188/3, Moo 8, Tambon Bangpu Mai, Amphoe Muang Samut Prakan, Samutprakan, Thailand 10280

Mobile - Thai : 0804531391, English: 0839415475, E-mail - contact@polymeradd.co.th



## TECHNICAL DATA SHEET

### CALCIUM SILICATE (SYNTHETIC) MICRONIZED

#### PRODUCT CLASSIFICATION

Item	Description
Chemical Name	Calcium Silicate (Synthetic)
CAS No.	1344-95-2
HS Code	2811.22.00
EINECS No.	215-710-8
Molecular Formula	CaSiO <sub>3</sub> (typical composition)
Molecular Weight	~116.16 g/mol
Synonyms	Synthetic Calcium Silicate, Precipitated Calcium Silicate

#### PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value / Description	Test Method
Appearance	White micronized powder	Visual
Odor	Odorless	Sensory
Purity (as CaSiO <sub>3</sub> )	≥ 95%	XRF
Moisture	≤ 5.0%	Oven drying at 105 °C
pH (10% slurry)	9.0 – 11.0	pH meter
Bulk Density	0.10 – 0.30 g/cm <sup>3</sup>	Tapped Density
Oil Absorption	150 – 300 g/100 g	ASTM D281
Surface Area	100 – 300 m <sup>2</sup> /g	BET
Particle Size (D50)	3 – 8 μm	Laser Diffraction
Particle Size (D90)	< 25 μm	Laser Diffraction
Whiteness	≥ 90%	Reflectance

➤ The commercial product specification may include only a selection of the properties listed above; this additional data is provided for general technical reference.

#### HEAVY METALS (EU REGULATION 10/2011 – CONTENT LIMITS IN ADDITIVES)

Element	Typical Limit	Test Method
Lead (Pb)	≤ 2 ppm	ICP, AAS
Cadmium (Cd)	≤ 1 ppm	ICP, AAS
Mercury (Hg)	≤ 1 ppm	ICP, CV-AAS
Arsenic (As)	≤ 1 ppm	ICP, AAS

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## USES / APPLICATION (MICRONISED / SOLID-STATE RELEVANT)

Industry	Commercial Application / Uses
Polyolefins (PE, PP)	Functional filler; improves stiffness, dimensional stability, and reduces density due to low bulk density
PVC Processing	Reinforcing and anti-block filler; enhances rigidity and surface finish
Engineering Plastics	Lightweight filler for dimensional control and thermal stability
Masterbatch & Compounds	Carrier and extender for additives; improves dispersion and reduces formulation cost
Rubber Processing	Reinforcing and processing aid; improves mechanical properties and processing consistency
Powder Processing & Dry Blends	High oil absorption material acting as anti-caking and flow control agent
Functional Fillers & Mineral Systems	Absorptive filler; used for liquid absorption and controlled release in solid systems
Additive One-Pack Systems	Used as carrier for liquid additives; enhances homogeneity and dosing accuracy
Coatings (Powder Systems)	Matting and anti-settling agent; improves texture and consistency
Adhesives & Sealants (Solid Systems)	Rheology modifier and filler; improves viscosity control and stability

## US FDA 21 CFR LISTING

CFR Section	Title / Description
21 CFR 182.1217	Listed as Generally Recognized As Safe (GRAS) for specific food-related uses
21 CFR 176.170	Permitted for use in paper and paperboard in contact with food under specified conditions
21 CFR 178.3297	Permitted as a colorant / additive in polymers under specified conditions

Compliance with applicable use levels, migration limits, and end-use conditions must be verified by the user.

## DISCLAIMER

This product is intended for industrial use in polymer, coating, rubber, adhesive, and specialty chemical applications. It is not recommended for pharmaceutical or direct food use unless separately certified. Compliance with food-contact and regional regulatory approvals must be verified by the user. Values above are typical for general reference and not binding specifications unless explicitly confirmed in writing.

**Month of Creation:** July 2025

**Month of Review:** July 2027