

Polymer Add (Thailand) Co.,Ltd.

Office - 106, Chalarempriakiat, 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



TALC-M325 TECHNICAL DATA SHEET

Chemical Name	TALC (HYDROUS MAGNESIUM SILICATE, MICRONIZED)
Grade Name	TALC-M325 (Micronized Talc)
CAS No.	14807-96-6
HS Code	2526.20.00
EINECS No.	238-877-9
Molecular Formula	$\text{Mg}_3\text{Si}_4\text{O}_{10}(\text{OH})_2$
Molecular Weight	379.27 g/mol
Synonyms	Talcum, Steatite, French Chalk, Soapstone, Magnesium Silicate Hydroxide

Property | Typical Value / Description | Test Method

Property	Typical Value / Description	Test Method
Appearance	Fine white to off-white powder	Visual
Odor	Odourless	Sensory
pH (10% slurry)	8.0 – 10.0	pH meter
Moisture Content	≤ 1.0%	Oven drying (105°C)
Purity (as Talc)	≥ 95%	Gravimetric / XRF
Specific Gravity	2.7 – 2.8	ASTM D153
Refractive Index	~1.58	Optical Method
Melting Point	>1500 °C (decomposes)	Literature / Estimation
Oil Absorption	30 – 50 g/100g	ASTM D281
Bulk Density	0.35 – 0.65 g/cm ³	Tapped Density Method
Solubility in Water	Insoluble	Visual Observation
Loss on Ignition (LOI)	5 – 8% (at 1000°C)	Muffle Furnace
Particle Size (D50)	5 – 15 µm (grade-dependent)	Laser Diffraction
Particle Size (D99)	25 – 45 µm (grade-dependent)	Laser Diffraction

Heavy Metals (EU Regulation 10/2011 — Content Limits in Additives)

(Food Contact / Additive Use)

Element	Typical Limit	Test Method
Lead (Pb)	≤ 5 ppm	ICP, AAS, XRF
Cadmium (Cd)	≤ 1 ppm	ICP, AAS
Mercury (Hg)	≤ 0.1 ppm	ICP, CV-AAS
Arsenic (As)	≤ 1 ppm	ICP, AAS
Chromium (VI)	ND	UV-Vis (after extraction)

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USES / APPLICATION

Industry	Commercial Application / Uses (Micronized Grade)
Plastics	Reinforcing filler in PE, PP, PVC, enhancing dimensional stability and rigidity
Rubber	Processing aid and anti-sticking agent in NR, SBR, EPDM
Paints & Coatings	Flatting agent, extender pigment, enhances anti-settling
Adhesives & Sealants	Rheology modifier, anti-sag, filler for structural control
Cosmetics	Slip agent, opacity control, skin adhesion booster
Paper	Improves printability, brightness, and opacity
Pharmaceuticals	Used as excipient, glidant, and carrier (pharma-grade only)

US FDA 21 CFR LISTING

CFR Section	Title / Description
182.2437	Talc (GRAS – direct food additive in limited quantities)
177.2600	Rubber articles for repeated use
178.3297	Colorants for polymers (as component of pigment formulation)

Colour Impacting Impurities

Element	Typical Max Limit (ppm)	Test Method
Iron (Fe)	≤ 300 ppm	ICP, AAS, XRF
Manganese (Mn)	≤ 50 ppm	ICP, AAS, XRF
Chromium (Cr)	≤ 30 ppm	ICP, AAS, XRF
Copper (Cu)	≤ 20 ppm	ICP, AAS, XRF
Nickel (Ni)	≤ 20 ppm	ICP, AAS, XRF

Product Performance Impacting Ions / Impurities

Ion / Element	Typical Max Limit (ppm)	Test Method
Calcium (Ca)	≤ 300 ppm	ICP, AAS, XRF
Magnesium (Mg)	≤ 500 ppm (additional)	ICP, AAS, XRF
Sodium (Na)	≤ 200 ppm	ICP, AAS, XRF
Potassium (K)	≤ 150 ppm	ICP, AAS, XRF
Chloride (Cl ⁻)	≤ 100 ppm	Ion Chromatography
Sulfate (SO ₄ ²⁻)	≤ 100 ppm	Ion Chromatography

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Disclaimer:

This product is manufactured according to industrial mineral standards. Although impurity levels comply with general safety limits for use in plastics and coatings, buyers must request specific certification if intended for food-contact or pharmaceutical applications. Not intended for medical implants or long-term contact with mucosa.

Month of Creation: June 2025

Month of Review: June 2027

POLYMERADD THAILAND