

Polymer Add (Thailand) Co.,Ltd.

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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

SODIUM ALUMINIUM SILICATE (SYNTHETIC) MICRONIZED

PRODUCT CLASSIFICATION

Item	Description
Chemical Name	Sodium Aluminium Silicate (Synthetic)
CAS No.	1344-00-9
HS Code	2842.10.00
EINECS No.	215-684-8
Molecular Formula	$\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot x\text{SiO}_2$ (amorphous framework)
Molecular Weight	Variable
Synonyms	Sodium Aluminosilicate, Synthetic Zeolite, SAS

PHYSICAL & CHEMICAL PROPERTIES

Property	Typical Value / Description	Test Method
Appearance	White micronized powder	Visual
Odor	Odorless	Sensory
Purity ($\text{SiO}_2 + \text{Al}_2\text{O}_3 + \text{Na}_2\text{O}$)	$\geq 95\%$	XRF
Moisture	$\leq 1.5\%$	Oven drying at 105 °C
pH (10% slurry)	9.0 – 11.5	pH meter
Specific Gravity	~2.0 – 2.3	Pycnometer
Bulk Density	0.40 – 0.80 g/cm ³	Tapped Density
Oil Absorption	80 – 150 g/100 g	ASTM D281
Particle Size (D50)	2 – 6 μm	Laser Diffraction
Particle Size (D90)	< 20 μm	Laser Diffraction
Whiteness	$\geq 90\%$	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

USES / APPLICATION (MICRONISED / SOLID-STATE RELEVANT)

Industry	Commercial Application / Uses
Polyolefins (PE, PP)	Functional filler; improves stiffness, opacity, and dimensional stability
PVC Processing	Reinforcing filler; enhances rigidity and processing control

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Engineering Plastics	Mineral filler for improved dimensional stability and mechanical performance
Masterbatch & Compounds	Carrier/extender; improves dispersion and cost optimization
Rubber Processing	Inert filler; improves processing consistency and surface finish
Coatings (Powder Systems)	Extender pigment; improves opacity, matting, and texture control
Adhesives & Sealants (Solid Systems)	Rheology modifier; improves formulation stability
Functional Fillers & Mineral Systems	Lightweight extender; balances density and performance
Powder Processing & Dry Blends	Anti-caking agent; improves flowability in fine powders
Polymer–Paper / Composite Systems	Enhances opacity, bulk, and surface smoothness

US FDA 21 CFR LISTING

CFR Section	Title / Description
21 CFR 178.3297	Permitted as additive in polymers under specified conditions
21 CFR 176.170	Permitted for use in paper and paperboard in contact with food 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.