



Aluminium Hydroxide ATH-1

CAS No.: 21645-51-2

Formula: $\text{Al}(\text{OH})_3$

DESCRIPTION

Aluminium Hydroxide ATH-1 is an ultrafine precipitated aluminium hydroxide featuring a uniform crystal structure, high purity, high whiteness, low soluble alkali content and low electrical conductivity. The product offers stable performance across a wide range of polymer processing applications and is suitable for high-quality flame retardant systems.

KEY FEATURES

- High purity and high whiteness
- Ultrafine, controlled particle size distribution
- Low soluble Na_2O
- Low electrical conductivity
- Low residue and low colour-point count
- Regular crystal structure and low surface activity

APPLICATIONS

- Flame-retardant cables and wire compounds
 - Copper-clad laminate systems
 - Silicone rubber and silicone insulators
 - Polymer insulation materials
 - General flame retardant formulations requiring ultrafine ATH
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LIMITED WARRANTY INFORMATION.
PLEASE READ CAREFULLY.

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This document is subject to revision without notice as new data becomes available.

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TYPICAL SPECIFICATIONS

Parameter	Specification
Aluminium Hydroxide $\text{Al}(\text{OH})_3$ (%)	≥ 99.4
SiO_2 (%)	≤ 0.02
Fe_2O_3 (%)	≤ 0.02
Na_2O (Total) (%)	≤ 0.3
Na_2O (Soluble) (%)	≤ 0.03
Moisture (%)	≤ 0.3
Loss on Ignition at 600°C (%)	34.5 ± 0.5
Whiteness (%)	≥ 96
Particle Size D50 (Laser Diffraction) (μm)	1.2 to 2.1
pH (–)	8 to 10
Oil Absorption (Linseed Oil) (ml/100 g)	≤ 40
Electrical Conductivity ($\mu\text{S}/\text{cm}$)	≤ 30
Specific Surface Area (m^2/g)	3 to 6
Density (g/cm^3)	2.4
Refractive Index (–)	1.58
Sieve Residue 325 Mesh (%)	≤ 0.1

PACKAGING

- 25 kg multi-layer paper plastic bag
- Alternative packaging may be available on request.

STORAGE

- Store in a cool, dry, well-ventilated area.
- Keep material sealed to prevent moisture absorption.
- Avoid conditions that may cause contamination or clumping.

SAFETY & HANDLING

- Avoid inhalation of dust.
- Use appropriate personal protective equipment including gloves, goggles and dust mask.
- Refer to the Safety Data Sheet for comprehensive hazard, handling and disposal information.