

Hydral[®] Coat 7

ALUMINUM HYDROXIDE (ATH)

DESCRIPTION

Hydral[®] Coat 7 is a white aluminum trihydroxide Al(OH)₃. It is a specially precipitated high-purity white aluminum trihydroxide powder with a brightness value of 99%. It has an extra-fine, uniform median particle size of about 0.7 microns in diameter. Hydral Coat 7 powder is a fully deagglomerated powder.

Hydral Coat 7 is halogen-free and finds wide application as a low-smoke, flame-retardant filler in thermoset and thermoplastic materials. It improves arc-track resistance in many plastics used in electrical applications.

As a reinforcing pigment in adhesives and adhesive tapes, Hydral Coat 7 improves cold flow properties, maintains the neutrality or alkalinity of the composition, and increases cohesion.

Chemical Composition (%)		
	Typical	Test Method
SiO ₂	0.005	DC Arc Optical Emissions Spectrometry
Fe ₂ O ₃	0.006	DC Arc Optical Emissions Spectrometry
Na ₂ O (total)	0.24	DC Arc Optical Emissions Spectrometry
Na ₂ O (soluble)	0.04	Flame Emissions Photometry
Al(OH) ₃	99.6	Difference
Moisture	0.38	Microwave
Physical Properties		
Loose bulk density (g/cm ³)	0.38	Modified ASTM B212-89
Packed bulk density (g/cm ³)	0.53	Modified ASTM B527-85
Surface area (m ² /g)	8.6	Brunauer-Emmett-Teller Nitrogen Adsorption
Brightness (% Z)	99.2	Z value of the XYZ Tristimulus divided by 1.18103
Refractive index	1.57	
Mohs hardness	3	
Electrical conductivity (μS/cm)	<200	Modified ISO787-14 (10%)
Particle Size		
% on 325 mesh	0.003	Wet Screen
d95 (μ)	1.60	Sedigraph 5100
d50 (μ)	0.70	Sedigraph 5100
d10 (μ)	0.35	Sedigraph 5100