



Product Data Sheet

ALUMINA HYDRATE

Alumina hydrate also known as hydrated alumina or aluminum hydroxide [Al(OH)₃ or Al₂O₃nH₂O], is a white non-combustible powder used as flame retardant and filler in cosmetics, plastics, inks and ceramics

S. NO.	PARAMETERS	VALUE	
1	Product Code		
2	Chemical Formula		
3	Appearance		
4	Physical Properties	Typical	Range
	*LOI(110-1000 Deg.C]	34-36	36 max
	*Moisture (5)	3-6	8 max
	Granulometry		
	*-45 Micron (%)	3-6	7 max
	Chemical Properties		
	Al ₂ O ₃ (%0	65+/-0.5	64.5 min
	Na ₂ O(%) Total	0.23 – 0.30	0.33 max
	Fe ₂ O ₃	0.005 – 0.008	0.016 max
	SiO ₂ [%]	0.007 – 0.010	0.016 max
	CaO [%]	0.026 – 0.030	0.033 max
	Na ₂ O [%] Soluble	0.015 – 0.025	0.030 max
	Hydrate content [%]	99.0	98.5 min

Usage:

- **Flame Retardant:** Acts as water repellent and flame retardant material.
- **Filler:** Used as a filler in various products, including solid surfaces, cosmetics, plastics, inks, ceramics and detergents.
- **Ceramics:** Improves suspension and viscosity in glazes, enhancing texture and controlling drying properties
- **Paper Coating:** Used as a coating material for paper.
- **Solid Surface Materials:** Can make up a significant portion [up to 70%] of solid surface products.

Key properties:

- Non-combustible : Alumina hydrate does not burn.
- Adhesive Qualities : Exhibits good adhesive properties.
- High melting point: Possesses a high melting temperature.
- Opacity: Promotes the opacity of enamels.