TECHNICAL DATASHEET

AFTAB
آفتاب تجارت امن بین‌الملل

Calcined Alumina for Standard Ceramics Industry

Alumina is used in standard ceramics like glazes and body of tableware porcelains. It can affect the appearance of finished product such as glaze from glossy and transparent to matt and opaque.
Ground calcined alumina in ceramic bodies improves thermal shock, scratch and abrasion resistance and mechanical resistance which is required for intensive use hotelware and domestic tableware.
Chemical purity, alpha alumina content and size of alpha alumina crystals, specific surface area (BET), average particle size (D50) and degree of calcination are important parameters of alumina for ceramics.

Advantages

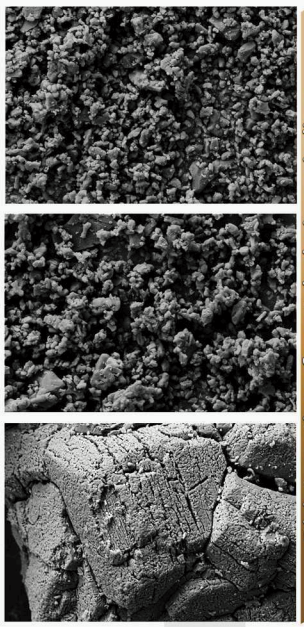
Good dimensional stability
High resistance to thermal shock
High mechanical strength
High wear and corrosion resistance

Applications

Engobes and glazes of tiles
Body of tablewares

Chemical Analysis and Physical Specifications

	Typical Values [1]	Hard Calcined		Medium Calcined		Low Calcined
		Unground	Ground [2]	Unground	Ground [2]	Unground
		Normal Soda				Medium Soda
Physical Properties	**Unit**	**AH200**	**AH202-45**	**AM100**	**AM700**	**AM702-45**	**GA110**
BET	m^2/g	1-2	1-2	2-3	9-15	9-15	60-70
D_{50}	µm	75	6	80	80	6	90
Screen Residue >45 µm	%	-	<2	-	-	<2	-
Chemical Properties							
Alpha Alumina Content	%	≈95	≈95	≈93	≈75	≈75	≈25
Al_2O_3	%	99.6	99.6	99.6	99.6	99.6	99.5
Na_2O	ppm	3500	3500	3500	3500	3500	2500
CaO	ppm	150	150	150	150	150	150
SiO_2	ppm	100	100	100	100	100	100
Fe_2O_3	ppm	115	115	115	115	115	115



[1] For allowable range of properties refer to datasheets
[2] Also available in narrower particle size distribution and lower top cuts

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