



LA Glass Powders Technical Data

Description

LA Glass powders are functional fillers and extenders produced from uniform chemistry low alkali glass powder. X-ray diffraction and scanning electron microscopy confirms that the LA Glass calcium aluminosilicate powders are fully amorphous and contain no crystalline silica. The low alkali glass chemistry results in chemical inertness, making LA Glass resistant to blooming, blistering, or chemical degradation in harsh environments.

LA Glass powders enhance a wide range of paints, coatings, plastics, and adhesives. High consistent brightness, tint retention and stain/scrub resistance can be achieved in most paint and coating systems. LA Glass has quite low oil absorption, and can be easily dispersed in water or solvent based systems.

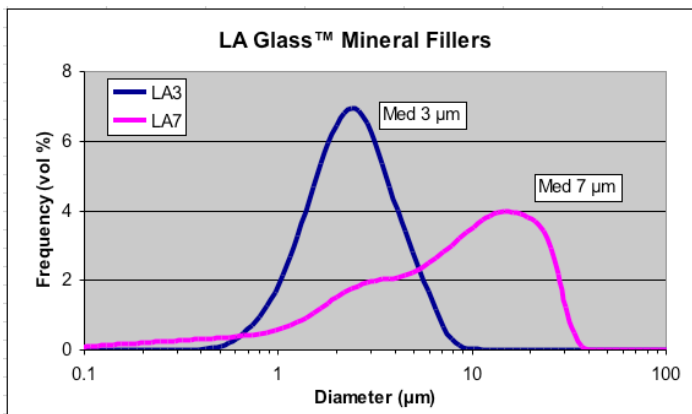
Vitro Minerals quality systems ensure uniform particle size and Hegman dispersions in all grades.

Typical Chemical Analysis

LA Glass Powders are amorphous (non-crystalline) and have total alkali content ($\text{Na}_2\text{O} + \text{K}_2\text{O}$) less than 1.5%.

SiO_2	50-55%	Na_2O	0.5-1.2%
Al_2O_3	14-20%	K_2O	0.1-0.2%
Fe_2O_3	<1%	MgO	<1%
CaO	20-25%	TiO_2	<1%
B_2O_3	0-6%	LOI	<0.5%

These oxides are combined in amorphous state in a calcium aluminosilicate glass.



Particle size distribution (laser interferometer) for LA 3 and LA 7 Glass Powders.



LA Glass Powders

Technical Data

Particle Size/Property Analysis

	Grade LA7	Grade LA3	Test Procedure
Specific Gravity	2.66	2.66	
Bulk Density, lb/ft ³	50	40	
Median Particle Size, μ	7	3	Laser Interferometer
% passing 325 mesh	99.8	100	
Hegman value	4	6	ASTM D-1210-79
Surface area, m ² /g	1.2	2.4	Nitrogen BET
Oil absorption	27	28	ASTM D-281
pH	9.4	9.4	AFS 113-87-S
Hardness – Mohs	5.5	5.5	Moh's Scale
Refractive Index	1.56	1.56	ASTM D-801
Free moisture, %	0.1	0.2	ASTM C-566
Brightness	83	84	Tappi
L	91	92	
A	0	0	
b	2.5	1.0	
Specific Resistance	3500 ohm-cm	3500 ohm-cm	ASTM D-2448

Ordering Information

Shipping Point: Spartanburg, SC

Packaging: 50-pound bags
Bulk bags
Bulk trucks

Product Information/Customer Service

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Disclaimer: The statements in this bulletin are based on data which is believed to be reliable, and is offered in good faith to be applied accordingly to the user's best judgment. Since operating conditions at customer's sites are beyond our control, Vitro Minerals will not assume responsibility for the accuracy of this data, or liability which may result from the use of its products. Likewise, no patent liability is assumed for use of Vitro Mineral products in any manner which could or would infringe on patent rights of others.

Health Hazard Warning: Prolonged inhalation of dust associated with the materials described in this data sheet can cause delayed lung injury. Avoid creating dust when handling, using or storing. Follow OSHA Safety and Health Standards for fugitive dust. Current Material Safety Data Sheet containing safety information is available and should be consulted before usage.

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