



# Wesolok Q

colloidal alumina  
for rigidizing ceramic fiber shapes

## Why Wesolok Q?

- **Withstands higher temperatures** - High purity alumina provides for low reactivity and can be used to replace colloidal silica where greater refractoriness at use temperatures is required.
- **No cristobalite** – Completely cristobalite free eliminating a common source of thermal shrinkage problems and health-related concerns.
- **Disperses easily** – Simple mixing with water will produce a colloidal alumina sol in 20 minutes.
- **Rigidizes effectively** - Can be used diluted or full strength for sealing or rigidizing of fiber bonded shapes.

### Typical Properties

Appearance	White powder
pH (20% in water)	3.2
Loose Density	35 – 50 lbs/ft <sup>3</sup>
Al <sub>2</sub> O <sub>3</sub> , wt. %	80
Na, ppm	< 50
Surface Area, m <sup>2</sup> /g	200 – 300*
Crystallite size, Å	40 - 90
Bulk particle size, µm	100 - 130
Concentration limit, sol	20 wt%**

\* After Activation (3 hours, 550°C)

\*\* Higher concentrations will gel

Wesolok Q alumina binder is a high purity boehmite (alumina monohydrate) powder ready for dispersion in water at up to 20% concentration to give stable colloidal alumina sols for rigidizing refractory fiber shapes. Use Wesolok Q to give fiber shapes that are more refractory and safer to use than colloidal silica rigidized shapes.

## How to Use Wesolok Q for rigidizing

Wesolok Q is easily converted to colloidal alumina sol by mixing with water. Mix powder into vortex and let mix for 20 minutes to disperse. Dry at 250°F (120°C). To set the rigidizer permanently, 750°F (400°C) is suggested as this will also remove the water of hydration from the alumina.

Blending by volume			
Water, Gallons	1	1	1
Wesolok Q, lbs	1	1.5	2
Concentration, wt %	11	15	19

Blending by volume			
Water, liters	6	5	4
Wesolok Q, kgs	1	1	1
Concentration, wt %	14	17	20

Blending by weight			
Water, lbs	40	39	38
Wesolok Q, lbs	4.4	6.9	9.5
Concentration, wt %	10	15	20
Final volume, gallons	5	5	5

### Storage, Handling, Packaging, and Safety:

Wesolok Q must be stored dry and protected from moisture. Under these conditions Wesolok Q has an infinite shelf life. Wesolok Q is available in fiber drums, 400 lbs net, loose. Cartons: 50 lbs. net. Wesolok Q is non-toxic. Do not breathe dusts. Dispersions are mildly acidic. Protect eyes from splashes. See SDS for a complete safety discussion.

For a price quote and valuable information  
on how we can help you improve your  
vacuum formed products call

**WESBOND**  
**(302) 655-7917**