



# Wesol D30

colloidal alumina  
for ceramic fiber bonding

## Why Wesol D30?

- **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.
- **Flocs with cationic starch** – Has a moderate cationic charge which works well with all starches, and especially well with a cationic starch like Westar+.

### Typical Properties

Appearance	White liquid
pH	3.5 – 4.5
Specific Gravity	1.23
Concentration , wt. %	30
Na, ppm	< 20
Surface Area, m <sup>2</sup> /g	140*
Crystallite size, nm	18

\* After Activation (3 hours, 550°C)

Wesol D30 alumina binder is a 30 weight percent dispersion of colloidal alumina. It can be used instead of colloidal silica in typical starch-flocced vacuum forming systems. Fiber shapes bonded with Wesol D30 are more refractory and safer to use than shapes bonded with colloidal silica.

## How to Use Wesol D30 for fiber bonding

For floccing starch and fibers for vacuum forming, use formulations listed below.

### Typical Formulation:

		<u>with filler</u>
Water, gallons	50	50
Refractory fiber, lbs	8	8
Alumina filler, lbs.	-----	3
Westar+ starch, lbs.	0.5	0.5
Wesol D30, lbs.	2.0	2.5

Follow above order of addition, allowing the starch to disperse and dissolve for 10 minutes before adding Wesol D30. Allow 5-10 minutes to floc before dropping to holding or forming tank. Form in normal fashion. Dry at 250°F (120°C). For burning out starch, 750°F (400°C) is suggested as this will also remove the water of hydration from the alumina binder to set it permanently.

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

Wesol D30 must be stored at room temperature to protect from freezing and over-heating. Wesol D30 is available in 1- and 5-gallon plastic pails; plastic 55-gallon drums (520 lbs net). Wesol D30 is non-toxic. 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**