



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 ² /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