



Wesoflok IF

all inorganic binder for saturation bonding of ceramic fibers

Wesoflok IF (Inorganic Floccer) is an all inorganic binder and floccing agent developed for use in colloidal silica recycle systems. WESBOND developed this unique new "Saturation Bonding" process which flocs an inorganic binder on the fibers in a colloidal silica sol of 10 - 20% concentration. This process bonds and semi-rigidizes in one vacuum forming/drying step.

Why Wesoflok IF?

- **Completely inorganic** – No organic starch content so no off-gassing.
- **Reduces delamination tendencies** – Produces bonded shapes that are more uniform in density and hardness with reduced delamination.
- **As strong as starch** - Density and strength is equivalent to starch flocced shapes at slurry formulations as low as 10% colloidal silica and 12% Wesoflok IF .
- **Greater surface hardness** - Surfaces flocced with our saturation bonding process are stronger and more durable than traditional starch-flocced shapes.

Typical Properties

Appearance	Tan dry powder
Bulk Density, pcf	38
Loss on Ignition (800°C)	55%
Product LOI (800°C)*	4 – 5%
Fusion Point	2400°F

Storage, Handling and Safety

Keep sealed to avoid moisture pickup.

Avoid inhaling dust. Refer to SDS for complete safety information.

Packaging

55 gal. fiber drums, plastic lined, 250 lbs. net

How to Use Wesoflok IF

Fill mix tank with 10 to 20% silica sol per chart below. Add ceramic fiber at normal concentration and mix to disperse. With continued good agitation, add Wesoflok IF (10% by weight of fiber) slowly to prevent lumps and allow 5 minutes to floc. Reduce agitation as soon as Wesoflok IF is dispersed to keep from breaking up floc. Vacuum form or drop to forming tank and form in normal fashion except save all silica sol effluent for recycle; dry at a minimum of 250°F.

Typical Formulation

Colloidal Silica, Gallons	50
Refractory Fiber, lbs	8
Wesoflok IF, lbs	0.8

Levasil FO2040 or FX2040 N Colloidal Silicas are used depending on the product's tolerance for sodium, with dilution as shown below:

	Silica Concentration		
	20%	15%	10%
Specific Gravity	1.13	1.10	1.06
Density, pcf	9.42	9.17	8.84
Mixing by Weight:			
Levasil FO2040, lbs	100	100	100
Water, lbs	100	167	300
Mixing by Volume:			
Levasil FO2040, gals	10	10	10
Water, gals	13	22	39

The diluted silica sols are continuously recycled, without further dilution, and reused in subsequent batches. Total volume is maintained by adding more Levasil and water. Measuring specific gravity and adding Levasil or water controls concentration.

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

WESBOND
(302) 655-7917