



MEGASOL[®] S50

silica binder
for refractory fibers

How to Use Megasol[®] S50

Megasol[®] S50 should be flocced with cationic corn starch, like Westar+, with an optimal ratio of 15% silica and 5% starch based on weight of total solids. Effective results can be obtained with silica to starch ratios of 1:1 through 4:1.

Typical Formulation:

		with filler
Water, Gallons	50	50
Refractory Fiber, lbs.	8	8
Mullite 100 filler, lbs.	-	4
Westar+ Starch, lbs.	0.4	0.6
Megasol [®] S50, lbs	1.6	2.4

Follow above order of addition, adding Westar+ dry and mix for five minutes to disperse and swell starch before adding Megasol[®] S50. Mix an additional five minutes to complete floccing before forming.

Storage and Handling:

Prolonged exposure to temperatures of 32°F or below should be avoided as the silica may precipitate out.

Patent Pending

Megasol[®] S50 is the optimal colloidal silica for bonding and rigidizing of refractory fiber shapes and boards. **Megasol[®] S50's** unique physical properties result in higher packing densities and stronger bonds. With approximately one third the surface area of commonly used binders, **Megasol[®] S50** requires less cationic starch to floc and yields higher silica content boards and shapes with better high temperature performance characteristics.

Use Megasol[®] S50 for these advantages

Greater Product Strength

Double the dried and fired strengths of other commonly used colloidal silica binders.

Flexibility in Formulation

Creates stronger pads than other sols at silica to starch ratios of 1:1 through 4:1.

Lower or No Smoke Products

You can use as little as 2% starch and still get excellent floccing and product strength resulting in little or no smoking at elevated use temperatures.

Less Shrinkage at High Temperatures

Larger particles and low sodium content creates less sintering and less shrinkage at 2100 - 2300°F use temperatures.

Better Rigidizing

Larger silica particles soak in further and faster for greater hardness throughout.

Saves Money

50% concentration means more silica per drum, lowering freight costs on both drum and bulk deliveries.

Typical Physical Properties

Color	White
Consistency	Milky Liquid
Specific Gravity	1.39
Particle Size, nm	70 <i>average</i>
Surface Area	70 m ² /gm (<i>estimated</i>)
Silica, Wt. %	50
Na ₂ O, Wt. %	0.22
PH @ 25°C	9.0 – 9.5
Viscosity @ 25°C, cps	15
Toxicity	Non Toxic, See MSDS
Packaging	620 lb. Net wt. 55 gal. Drums, 3100 lb. Net wt. 275 gal. tanks

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

WESBOND
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