CIMBAR
Performance Minerals

BARIFINE™

Ultra-Fine Barium Sulfate Based Products

Ultra-fine products manufactured using a proprietary process. Barifine products are highly dispersible pigments that are chemically and physically inert. They promote superior dispersibility of pigments in coatings and inks, therefore intensifying pigment strength.

PROPERTIES					
	BF-1	**BF-10**	**BF-20 BF-20P/BF-20F**	**BF-21 BF-21P**	**BF-40**
Chemical Analysis					
$BaSO_4$	97.0	97.0	96.0	94.5	94.3
SiO_2	-	-	0.6	-	1.8
Physical Properties					
Moisture %	0.6	0.4	0.7	0.7	0.43
Soluble Salts %	0.1	0.2	0.4	0.2	0.62
pH	8.3	9.3	9.6	9.5	9.1
Specific Gravity	4.1	4.1	4.0	4.0	-
Dispersed Particle Size, micron	0.05	0.06	0.03	0.05	-
Oil Absorption, ml/100g	22	20	24	23	40.5
Specific Surface Area, sqm/g	24	18	31	25	-
Appearance	BARIFINE products are granules, that when properly dispersed are transparent.				

Barifine products are packaged in 25 Kg paper bags.

Uses:

- Automotive coatings
- Appliance coatings
- Industrial water-born coatings
- Architectural water-born coatings
- Inks
- Plastics

Characteristics of Barifine Products

- Highly Transparent
- Haze free gloss and leveling by superfilling effect.
- Encapsulates pigment particles to maximize color intensity
- Improves printability.
- Controls aluminum pigment spacing.
- Thixotropic properties without lowering gloss.

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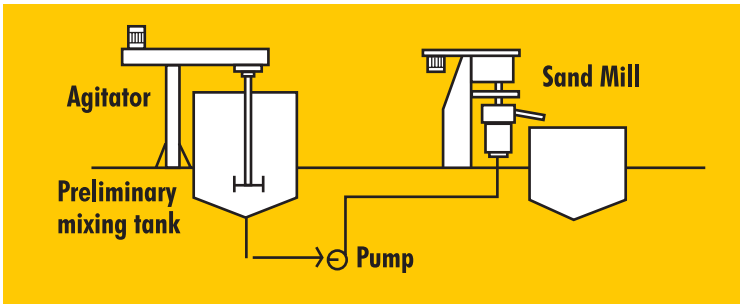
BARIFINE™

Dispersion of Barifine Products

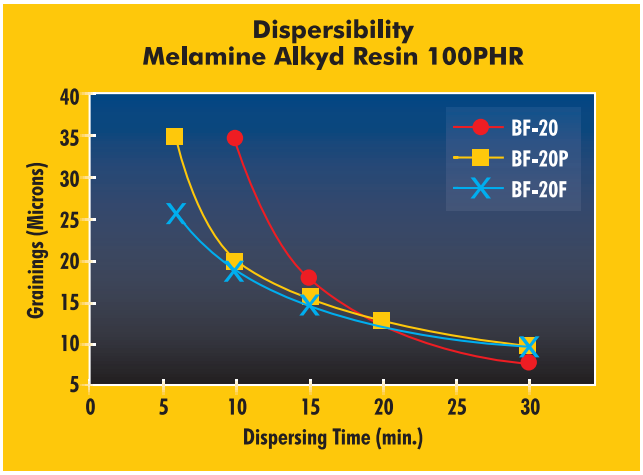
1. Barifine must be dispersed to the finest particles to achieve maximum properties in a formulation.
2. Relative grinding time to be fully dispersed is about twice the time needed to get to the 5 micron level.
3. Sand or bead mills are the best choice for dispersion. A combination of two different mills produce better results since Barifine's granulated particle size initially starts out at about 100 microns.

Initial Dispersion	Secondary Dispersion
Ball Mill	. . . . . .Sand Mill
Roll Mill	. . . . . .Sand Mill

4. Undispersed Barifine can precipitate and clog the bottom of the preliminary mixing tank. It may also stick to the inner wall of the pipe loading to the mill. For the elimination of these problems Barifine should be dispersed by ball or roll mill.



5. It is recommended that Barifine be dispersed with organic pigments that are difficult to disperse. A Barifine dispersion paste and color dispersion can be prepared separately then mixed together as needed for paint formulation. For best results a minimum blend of 1:1 Barifine to pigment is recommended, but as much as 2:1 can be used.
6. Barifine can increase UV stability.



Formulation; OWC = 50%	100PHR
Pigment	15.0
J-524 (Alkyd Resin NV 60%)	17.5
J-820 (Melamine Resin BV 50%	8.9
Xylene	4.9
	40.3

Dispersing Mill; Red Devil Paint Conditioner

A Product and Service Line of Halliburton Energy Services, Inc.
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