

EPS[®] 2293

Suggested Formulation

DESCRIPTION

EPS[®] 2293 is a self-crosslinking all-acrylic emulsion offering excellent adhesion and early water resistance for use in clear sealers over tiles and cementitious substrates. Clear and pigmented coatings can be formulated at less than 100 g/l VOC. EPS 2293 offers excellent performance in exterior stain formulations for deck and wood applications, and garage floor paint

PROPERTIES

- Exceptional blush resistance
- Exceptional chemical resistance
- Exceptional early water resistance
- Exceptional wet and dry adhesion to wood, tiles, glass, and cementitious substrates
- Excellent gloss development and gloss retention
- Excellent exterior durability
- Excellent abrasion resistance
- Excellent performance as a wood stain
- Low temperature film formation (10 mills at 38°F)
- <100g/L VOC capable
- Made without APEO surfactants

Specifications

Weight Solids	40.0 ± 0.7%
Weight/Gallon	8.70 ± 0.10
pH	8.0 – 9.0

Typical Properties

Volume Solids	37.0 ± 0.7%
MFFT	< 10° C
Volatile(s)	Water

Suggested Coalescing Solvent(s)

(% Solvent on Binder Solids – Pass 40°F LTC Test)

Texanol in clears	6%
Texanol in pigmented paints	10%

Questions? Call EPS Customer Service @ 1-800-654-4242 / Email: info@eps-materials.com

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TECHNICAL SUPPORT: These guidelines are offered to assist the paint formulator in achieving the high performance properties noted and are offered for illustration purposes only; the paint formulator bears sole responsibility for the performance of the final coating product.

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Formulating Guidelines

Dispersants/Surfactants

- Recommended dispersants for paints include Tamol 731, Disperse-Ayd W-22, and BYK 152 or BYK 156
- Recommended surfactants include Triton CF-10 for paints and Surfynol PSA-336 for clear sealers
Additional success in clear sealers has been seen with Surfynol 104A, 104BC, and 104E

Defoamers

- Drewplus L-475 is recommended for paints
- BYK 024 is recommended for clear sealers. Other polysiloxanes such as BYK 021, BYK 022 and BYK 028 have additional potential

Coalescents

- Texanol is the preferred coalescent. Preliminary testing has shown that EB also has potential

Rheological Modifiers

- A combination of RM-2020 and RM-825 have proven to provide a good balance between flow and leveling and also viscosity control and sag resistance in paints
- Optiflo L-100 at 1-5% by weight in clear sealers is effective in controlling run-off in horizontal applications where the substrate is not level. Care should be taken to avoid exceeding 25 seconds on a #2 Zahn cup, which may result in brush marks and improper flow and leveling

Preservatives

- "BIT" types are recommended as bactericides for in-can preservation. Lonza Proxel AQ and Troy Mergal K10N are recommended. It is mandatory that no formaldehyde be present
- "IPBC" types are recommended as dry film preservatives where ponding water may result. Fungitrol 940 has been shown to perform well

Flattening Agents

- BYK Ceraflour 1000 is the preferred flattening agent. Some settling will occur upon storage, but should be mixed in easily with light agitation. Ceraflour 1000 can be used at a rate of 10 lbs. to 20 lbs. per 100 gallons in clear sealers, depending on the level of flattening desired. It is essential that formaldehyde be avoided when choosing a flattening agent.
- Microspersion 31-35 from Micro Powders Inc. has proven to be effective also.

Stability

- The use of Potassium Tripolyphosphate is recommended for optimal shelf stability

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Suggested Formulation

FORMULA: EPS 2293 ST1 (261-94) (8/15) Semi-transparent Exterior Wood Stain – 100 g/L VOC

<u>Pounds</u>	<u>Gallons</u>	<u>Raw Material</u>	<u>Supplier</u>	<u>Instructions</u>
568.8	65.0	EPS 2293	EPS	Add raw materials under good agitation
224.9	27.0	Water		
0.8	0.10	Ammonium Hydroxide 28%		
2.0	0.28	Surfynol 104A	Evonik	
8.0	0.96	Foamex 805	Evonik	
10.0	1.09	Tinuvin 5151	BASF	
8.0	1.00	Michem WC 50	Michelman	
22.5	2.85	Texanol	Eastman	
11.0	1.15	Polyphase 663	Troy	
<u>5.0</u>	<u>0.55</u>	Acrysol RM-8W	Dow	Mix 20 minutes
860.91	99.97	Totals		

The stain base can be tinted with NovoColor® IP low VOC colorants from CCA. For example, the addition of 3.0lb of 8538T Trans Oxide Red and 15.0lb 8570T Trans Oxide Yellow to 100 gal of base will achieve a Cedar color S/T stain.

Formulation Parameters

Weight Solids	29.03 %
Volume Solids	26.46 %
Weight / Gallon	8.61 lb/gal.
Pigment Volume Conc.	0.0 %
Pigment / Binder	0.00
VOC	98 g/L 0.82 lb/gal

Typical Paint Properties

Viscosity (KU)	70-90
pH	8.5-9.5
Color	Clear base

Suggested Application Methods: Brush, Roller, Spray

The use of formaldehyde-containing raw materials must be avoided. A mildewcide / algacide may be incorporated in regions where mildew growth is prevalent.

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