



PRIMAL™ PP-1501 Emulsion

For Textured Finishes, EIFS (Exterior Insulation Finishing Systems) and High PVC Coatings

Regional Product Availability

- Asia-Pacific

Description

PRIMAL™ PP-1501 Emulsion is a fast drying, 100% acrylic polymer with excellent exterior durability, water resistance and mechanical stability for the use in textured finishes.

PRIMAL PP-1501 Emulsion is designed for EIFS adhesives, basecoats and topcoats; and more generally in organic renders. PRIMAL PP-1501 Emulsion incorporates a quick set technology for use during cold and humid climate conditions. It offers excellent resistance to yellowing as well as to water pick-up and to dirt pick-up combining these properties with excellent early wash-out resistance even under combined adverse temperature (1-10°C) and humidity (90-95% rel. humidity).

PRIMAL PP-1501 Emulsion can be used as a single binder for adhesive, basecoat and topcoats for EIFS.

DOWANOL™ PnB and DOWANOL DPnB Coalescent based on 3-5% on binder solids are recommended to facilitate an optimum film formation of PRIMAL PP-1501 Emulsion based formulated systems in the 1-10°C temperature range.

PRIMAL™ PP-1501 Emulsion is not recommended for use in cementitious basecoats or topcoats.

Recommended Applications

- Trowel-on, Brush-on, Roll-on and Spray-on textured finishes.
- Non-Cementitious adhesives, base coats and topcoats.

Benefits

- Excellent exterior durability.
- Excellent adhesion and water resistance.

Typical Properties

Property	Typical Values
Appearance	Opaque, white to off-white liquid
Solids, by weight, %	58.0
Density, wet, (g/ml)	1.05
pH	9.5
Minimum Film Formation Temperature, (± 2°C)	5
Viscosity (Brookfield LV#3, 60 rpm, 25°C), cps	< 900
Storage precautions	Protect from freezing





Suggested Starting Point Formulation

Basecoat / Adhesive Based on PRIMAL™ PP-1501 Emulsion

Material Name	Function	Kg
Water	(Diluent)	88.78
CELLOSIZETM QP-30000H	(HEC Thickener)	1.54
PRIMAL™ PP-1501	(Emulsion)	168.91
Colloids 643	(Defoamer)	1.15
Propylene glycol	(Wet Edge Agent)	1.22
Polyester fibres (6mm)	(Re-inforcement)	1.22
Alsibronz 88	(Mica re-inforcing Agent)	9.17
Skane M-8	(Biocide)	1.22
Copper nitrate (2%)	(Catalyst)	2.44
Ti-pure R-942 slurry	(Titanium Dioxide)	30.58
Sand (60 mesh)	(Extender)	244.81
Sand (125 mesh)	(Extender)	367.24
Marble powder (8 mesh)	(Extender)	76.54
Texanol	(Coalescent)	3.91
Colloids 643	(Defoamer)	0.64
Ammonium hydroxide (28%)	(pH control)	0.64
	Total	1000.00
Expected Formulation Properties *		
PVC, %	75.3	
Weight solids, %	82.1	
Volume solids, %	66.5	

Suggested Starting Point Formulation

Render Based on PRIMAL™ PP-1501 Emulsion

Material Name	Function	Kg
Water	(Diluent)	41.83
CELLOSIZETM QP-30000H	(HEC Thickener)	0.14
PRIMAL™ PP-1501	(Emulsion)	149.64
Colloids 643	(Defoamer)	5.44
Propylene glycol	(Wet Edge Agent)	1.71
Texanol	(Coalescent)	4.56
Ti-pure R-942 slurry	(Titanium Dioxide)	44.15
Ammonium hydroxide (28%)	(pH control)	1.36
Sand (0 / 1 mm)	(Extender)	101.98
Sand (60 mesh)	(Extender)	611.35
Attagel 50	(Attapulgate Thickener)	12.18
Skane M-8	(Biocide)	1.33
Copper nitrate (2%)	(Catalyst)	2.70
ACRYSOL™ ASE-60	(Thickener)	1.23
Water	(Diluent)	20.38
	Total	1000.00
Expected Formulation Properties *		
PVC, %	78.1	
Weight solids, %	84.7	
Volume solids, %	70.1	

*Properties are typical but do not constitute specifications





Test and Performance Results

Properties* of a Non-cementitious EIFS Basecoat

	Standard Emulsion	PRIMAL™ PP-1501 Emulsion
Early wash out resistance		
Curing time (hrs) for 120 mn washout resistance:		
24°C / 55% RH	7	1 - 2
4.5°C / 80% RH	24 - 30	4 - 7
Scrub resistance after 24 hours		
24°C / 55% RH, % weight loss after 2000 cycles	1.0	0.8
4.5°C / 80% RH, cycles to rupture	0	1,300
Water absorption after 24 hours (% H ₂ O),	13.1	8.6
Tensile strength , kPa, 24°C	2.1	2.6
Elongation , %, 24°C	27	34
Tensile modulus , kPa, 24°C	41	68
Flexural strength , mandrel at 24°C, cm	1.2	2.5
Flexural strength , mandrel at 4.5°C, cm	5	5
Freeze-thaw stability , cycles	5	5
Heat-age stability	pass	pass

Test and Performance Results

Properties* of a Non-cementitious Render

	Standard Emulsion	PRIMAL™ PP-1501 Emulsion
Early wash out resistance		
Curing time (hrs) for 120 mn washout resistance:		
24°C / 55% RH	6	2
4.5°C / 80% RH	24	7 - 8
Water absorption after 24 hours (% H ₂ O),	8.7	8.0
Tensile strength , kPa, 24°C	370	417
Elongation , %, 24°C	29	26
Tensile modulus , kPa, 24°C	61	61
Freeze-thaw stability	fail	pass
Heat-age stability	pass	pass

*Properties are typical but do not constitute specifications

