

ECCOCRYL S5103

SELF CROSS-LINKING ACRYLIC POLYMER

Eccocryl S5103 is a self cross-linking acrylic polymer that was developed to create a primer for medium-density fiberboard (MDF) for doors and trim. The formulations are block resistant to temperatures up to 150°F. They have excellent adhesion to the fiber board and are water resistant.

KEY BENEFITS

- Primer for MDF board
- Block resistance
- Low-VOC
- Adhesion

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TYPICAL PROPERTIES*

Appearance	Translucent White
pH.....	9.5
Solids, % by Weight	45
Viscosity, cps @ 25°C	< 150
Density, lbs/gal	8.8
% VOC	0
Tg °C	65
Acid Number	19
Freeze/Thaw Stability	Passes 3 cycles
König Hardness (secs).....	98

*These values should not be interpreted as specifications.



The Spark of Innovation

Visit us on the web at
www.essentialpolymers.com

28391 Essential Road • P.O. Box 12
Merton, WI 53056-0012
(262) 538-0091 • FAX: (262) 538-1354

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Starting Point Formulation – MDF Primer

INGREDIENTS	LBS	GALLONS
GRIND		
Water	100.0	12.0
Kathon LX(1.5%)	1.2	0.14
Tamol 165A	11.0	1.25
BYK 022	1.0	0.12
Chemours Ti-Pure R-706	225.0	6.75
Calcium Carbonate	400.0	17.72
LET DOWN		
Water	113.8	13.66
ECCOCRYL S5103	388.9	44.39
DPnB	7.6	1.0
DPM	11.9	1.5
Water	2.6	0.31
BYK 024	2.0	0.25
BYK 346	2.5	0.25
Ammonia Hydroxide	2.5	0.33
Acrysol RM 995	2.9	0.33
	1274.4	100.0

Formulation Attributes

PVC	56.6%
Volumes Solids	43.2%
Weight Solids	62.9%
VOC	50 g/l
Viscosity, cps	250

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Performance Information

2-mils wet of coating is applied to medium-density fiberboard (MDF). The panel is baked 15 minutes at 300F in an oven.

Adhesion Testing – ASTM D3359

The panels are removed and allowed to cool to room temperature.

Results - Excellent – Trace adhesion failure around cut line.

Face-to-Back Block Test

The cooled panels are placed Face to back and 250 PSI is applied to the panels in 150F oven for 2 hours. The panels are removed and allowed to cool to room temperature before evaluating block resistance.

Results - Excellent – No Blocking.