

ESSENTIAL R4289

ALIPHATIC SOLVENT-FREE POLYURETHANE DISPERSION

DESCRIPTION

Essential R4289 is a 33% solids solvent-free PUD designed to have excellent adhesion to flexible substrates; such as flexible PVC. R4289 also offers film flexibility, elasticity and toughness. Essential R4289 maintains its flexibility and toughness below 0° C.

For added chemical and water resistance properties, Essential R4289 can be cross-linked using water dispersible trimers; such as Rhodia's Rhodocoat EZ D803.

KEY BENEFITS

- Excellent Adhesion to Flexible PVC
- Low VOC - < 150 g/l
- Low Temperature Flexibility
- Toughness

TYPICAL PROPERTIES*

Appearance	Opaque White
pH	9.0
% Solids	31.5%
Viscosity	< 300
Density, lbs./gal.	8.5
VOC Level (As Supplied),	1.23 lbs./gal.
	< 150 g/l
Particle Charge	Anionic

**These values should not be interpreted as specifications.*

Visit us on the web at www.essentialrmd.com

* DISCLAIMER: The information and recommendations contained herein are based on data believed to be correct. The information is offered solely for the customer's consideration, investigation and verification because of numerous factors beyond our control affecting the results of the use of products, Essential Industries, INC. makes no warranty of any kind, expressed or implied, including those of merchantability and fitness for a particular purpose, other than that the product conforms to its applicable current standard specification. The manufacturer's only obligation shall be to replace such quantity of the product proven to be defective.

10512

TECHNICAL DATA

R4289

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ESSENTIAL R4289 FILM PROPERTIES

All tests were performed on coatings kept at 77°F and 50% RH for seven days before testing.

Tensile Strength, PSI	2315
Elongation at Break, %	308
Tests Performed on Aluminum Panels (1-Mil Dry Films)	
Konig Hardness (Seconds) (1 day, 7 day)	87, 92
Grit Feed Taber Abrasion (Mg Loss, 500 Cycles, 1000g)	7.8 mg

STARTING POINT FORMULATION

ESSENTIAL R4289 Clear 2-K Formulation

<u>MATERIALS</u>	<u>POUNDS</u>
Part A	
ESSENTIAL R4289	600.0
30% Emulsion PED 191	33.0
Premix Next Items:	
Water	148.0
Zonyl® FSP	1.2
Surfynol 104BC	4.0
Tego Foam X 815	0.12
Part B	
Rhodacoat® EZ-D803	<u>78.8</u>
	100 gallons
Formulation Attributes:	
Solids, % by Weight	30.0%
pH	8.75%
Weight, Lbs./Gal.	8.66

PERFORMANCE INFORMATION

Adhesion profile - Excellent adhesion to flexible PVC & polypropylene

CHEMICAL RESISTANCE:

10% NH ₄ OH	No Effect	70% IPA	No Effect
Formula 409	No Effect	5% Bleach	No Effect
50% Ethanol	No Effect	5% HCl	No Effect
10% H ₂ S ₂ O ₄	No Effect	Vinegar	No Effect