

ESSENTIAL R4130

n-MP-FREE POLYURETHANE DISPERSION

DESCRIPTION

ESSENTIAL R4130 was designed to have excellent abrasion properties. R4130 can be used alone or in combination with acrylic for wood, flooring and plastic applications. To further upgrade these properties, the coating can be cross-linked with a polyfunctional aziridine or a trimer.

R4130 exhibits excellent exterior durability and can be used to produce both clear and pigmented coatings.

KEY BENEFITS

- Abrasion Resistance
- Film Toughness
- Excellent Adhesion
- Exterior Durability
- n-MP Free

TYPICAL PROPERTIES*

Appearance	Translucent
pH	8.0
Solids, % by Weight	34.0
Solids, % by Volume	29.6
Viscosity, cP @ 25°C - Brookfield, LV2, 60rpm	50
Density, Lbs./Gal.	8.80
VOC Level (As Supplied)	
Lbs./Gal.	1.99
G/L	239
Particle Charge	Anionic
Acid Number	24

**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.

F0409

TECHNICAL DATA

R4130

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ESSENTIAL R4130 FILM PROPERTIES

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

Tensile Strength, PSI	2100
Elongation at Break, %	230
Tests Performed on Aluminum Panels (1-Mil Dry Films)	
Konig Hardness (Seconds)	72
Grit Feed Taber Abrasion (Mg Loss, 500 Cycles, 1000g)	3

STARTING POINT FORMULATIONS

ESSENTIAL R4130 / ESSENTIAL R5809 Clear Formulation

<u>MATERIALS</u>	<u>POUNDS</u>	<u>GALLONS</u>
ESSENTIAL R5809	501.00	57.45
ESSENTIAL R4130	150.00	17.0
Water	70.9	8.5
Premix Next Three Items:		
Water	29.00	3.48
Dowanol® DPM	7.50	0.94
Dowanol® DPnB	60.00	7.94
Essential R2086	19.00	2.32
Tego® Glide 440	3.90	0.46
Tego 800	10.50	1.22
Zonyl® FSJ	0.85	0.09
Acrysol® RM-825	3.80	0.44
	856.45	100.00
Formulation Attributes:		
Solids, % by Weight	30.09	
Solids, % by Volume	27.38	
Viscosity, Seconds Z#2	45	
pH	8.3	
Density, Lbs./Gal.	8.56	
Calculated VOC (Excluding Water)		
G/L	255	
Lbs./Gal.	2.13	

ESSENTIAL R4130

PERFORMANCE INFORMATION

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

Tests Performed on Aluminum Panels (1-Mil Dry Films)

Konig Hardness (Seconds)	130
Grit Feed Taber Abrasion (Mg Loss, 500 Cycles, 1000g)	35

Tests Performed on Maple Veneer After a Seven Day Dry (2 Coats, 1-Mil Dry Per Coat) 1 Hour Covered Spot Test.

Water	No Effect
Soda	No Effect
Beer	No Effect
Mustard	Slight Effect
Formula 409	Slight Effect
10% HCL	No Effect
10% NaOH	No Effect

SUPPLIER INFORMATION

<u>Product</u>	<u>Description</u>	<u>Supplier</u>
ESSENTIAL R4188	Polyurethane Dispersion	Essential Industries
ESSENTIAL R5809	Emulsion	Essential Industries
Dowanol® DPM	Solvent	Dow Chemical
Dowanol DPnB	Solvent	Dow Chemical
Essential R2086	Wax Emulsion	Essential Industries
Tego® Glide 440	Mar Inhibitor	Tego
Tego 800	Defoamer	Tego
Zonyl® FSJ	Flow Aid	DuPont
Acrysol RM-825	Thickener	Rohm & Haas