

ESSENTIAL R5884

STAIN-BLOCKING ACRYLIC EMULSION

DESCRIPTION

Essential R5884 is an acrylic emulsion that yields tough, durable films with very good water-resistant properties. It can be used as a primer, sealer or topcoat, as well as a modifier for water-reducible alkyd resin systems to increase gloss, flexibility and durability. R5884 has shown exceptional stain-blocking properties and good block resistance.

R5884 finds uses in wood coatings, floor coatings, industrial, trade sales, automotive and paper coatings. It may be blended with polyurethane dispersions, if desired. R5884 illustrates very good overall acoustical and sound-deadening properties. It has excellent flexibility and will yield low VOC, high solids formulations. R5884 has exceptional adhesion to a variety of substrates including many types of plastic.

KEY BENEFITS

- High Solids
- Excellent Flexibility
- Low VOC
- Exceptional Adhesion

TYPICAL PROPERTIES*

Appearance	Milky-White Emulsion
pH	8.0
Solids, % by Weight	55.0
Solids, % by Volume	53.0
Viscosity, cP @ 25°C	325
Tg, °C	8
Density, Lbs./Gal.	8.7
VOC Level (As Supplied)	
Lbs./Gal.	0
G/L	0
Acid Number	13
Freeze/Thaw Stable	Protect From Freezing

**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.

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STARTING POINT FORMULATIONS

Essential R5884 Stain-Blocking Formulation

<u>MATERIALS</u>	<u>POUNDS</u>	<u>GALLONS</u>
Water	207.0	24.85
Propylene Glycol	21.0	2.43
Acrysol® 825	3.0	0.35
Ammonia	1.0	0.13
Tamol® 165A	9.5	1.04
Dynol® 604	2.5	0.31
BYK® 024	2.0	0.24
Attagel 50	1.0	0.05
Ti-Pure® R-902	155.0	4.66
Halox® Xtain® A	25.0	1.01
Talcron® MP 44-26 Talc	209.0	8.96
Grind to a 4+ Hegman		
Essential R5884	423.0	48.57
BYK® 024	1.6	0.19
Acrysol® RM-825	1.0	0.12
Premix Next Two Items:		
Texanol	10.5	1.33
Water	<u>48.1</u>	<u>5.78</u>
	1120.2	100.0
Formulation Attributes:		
Solids, % by Weight	56.4	
Solids, % by Volume	41.4	
Viscosity (Kreb Units, KU)	96	
pH	8.5	
Density	11.2	
Pigmented Volume Concentration (PVC), %	35.5	
Calculated VOC (Excluding Water)		
G/L	57	
Lbs./Gal.	0.48	

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PERFORMANCE INFORMATION

Tannin Blocking	Essential R5884	Competitor A
Before Humidification	Delta B = 2.149	Delta B = 2.196
After Humidification	Delta B = 2.995	Delta B = 4.011

Delta B equals the change in yellow according to the CIELAB System.
Larger numbers indicate greater degree of yellowing.

Interior stain-blocking of pens, markers, highlighters and crayons is equal between Competitor A and Essential R5884.

SUPPLIER INFORMATION

<u>Product</u>	<u>Description</u>	<u>Supplier</u>
Essential R5884	Emulsion	Essential Industries
Acrysol® 825	Thickener	Rohm & Haas
Tamol® 165A	Surfactant	Rohm & Haas
Dynol® 604	Surfactant	Air Products
BYK® 024	Defoamer	BYK-Chemie
Attagel 50	Anti-setting	Engelhard
Ti-Pure® 902	Titanium Dioxide	DuPont
Halox® Xtain® A	Stain-Blocking Pigment	Halox
Talcron® MP 44-26	Talc	Specialty Minerals
Texanol	Solvent	Eastman Chemicals