

ECCOTHANE H4431

HYDROXYL-FUNCTIONAL URETHANE/ACRYLIC HYBRID

ECCOTHANE H4431 is an aliphatic triethanolamine neutralized Hydroxyl-functional urethane/acrylic hybrid that will produce low-VOC 2-K coatings when cross-linked with a water-dispersible polyisocyanate; such as, Easaqua L-600 and Easaqua M-502. The coatings created have excellent chemical resistance properties and have excellent König hardness. It is designed for topcoat applications for concrete, wood and plastics.

KEY BENEFITS

- Low-VOC 2-K coatings
- Excellent chemical resistance
- Adhesion to various substrates

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.

TYPICAL PROPERTIES*

Appearance	Translucent
pH.....	7.5
Solids, % by Weight	45
Viscosity, cps @ 25°C	350
Density, lbs/gal	9.0
% VOC	3.9
Particle Size, nm	30
Particle Charge	Anionic
Acid Number	28
Hydroxyl Number	195
Freeze/Thaw Stability	Passes 3 cycles

*These values should not be interpreted as specifications.



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Starting Point Formulation

PART A

<u>Formulation</u>	<u>Pounds</u>
ECCOTHANE H4431	634.1

Premix Next Items:

Water	177.6
Tego Glide 496	1.7
BYK028	1.1
Dynoll 800	2.3
DPnB	16.1
TOTAL:	833.3

PART B

Esaqua L 600	166.7
GRAND TOTAL:	1000.0

Formulation Attributes:

Solids, & by weight	46%
VOC g/l	40

Film Properties

Applied using a 50-wire wound bar to Cold rolled Steel panels.
1 mil dry film thickness.

Konig Hardness

1 day	56 secs
2 day	68 secs
3 day	71 secs
4 day	74 secs
7 day	87 secs

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Film Properties

Crosshatch Adhesion

Dry No removal of the coating
Wet (1 hour spot test with water) No removal of the coating

Impact Resistance

Direct Passes 160-inch lbs.
Indirect Passes 160-inch lbs.

Mandrel Bend Passes 0 t-bend

Hot Tire Pickup

Initial Stain	No Effect
Cleaned Stain	No Effect
Initial Imprint	Slight Imprint
Cleaned Imprint	Completely removed with ease

Chemical Resistance Properties

2 coats applied to concrete tile using a roller at 300 sq feet per gallon.
Allowed to cure for 7 days.

Water	No Effect
Motor Oil	No Effect
Transmission Fluid	No Effect
Anti-Freeze	No Effect
Skydrol	No Effect
Betadine	Stained
Bleach	No Effect
Brake Fluid	No Effect
MEK	Passes 200 double rubs