

ESSENTIAL R4100

POLYURETHANE DISPERSION

Essential R4100 is an aliphatic polyurethane dispersion that is designed for topcoat applications where flexibility and a high degree of hardness are required. Coatings formulated with R4100 exhibit excellent adhesion to concrete, wood, metal and a variety of plastics including ABS, polycarbonate, flexible and rigid PVC and polyurethane.

R4100 is compatible with acrylic emulsions and is useful in upgrading the adhesion, toughness and flexibility of the coating. To further upgrade the properties, the coating can be cross-linked with a polyfunctional aziridine or trimer.

It exhibits excellent exterior durability and can be used to produce both clear and pigmented coatings. R4100 has excellent mechanical stability and wetting properties, making it a useful grinding vehicle.

KEY BENEFITS

- Film hardness and toughness
- Excellent adhesion
- Exterior durability
- Abrasion resistance

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	Milky White
pH.....	8.0
Solids, % by Weight	33.0
Viscosity, cps @ 25°C	< 150
Density, lbs/gal	8.7
% VOC	15.0
Acid Number	25
Freeze/Thaw Stability	Passes 3 cycles
Konig Hardness (secs).....	130

*These values should not be interpreted as specifications.



**Essential[®]
Polymers**

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Film Properties

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

Tensile Strength, PSI 4000
Elongation at Break, %..... 90

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

Konig Hardness (Seconds) 1 Day, 7 Day90, 130
Grit Feed Taber Abrasion (Mg Loss, 500 Cycles, 1000g) 12