

Bomar™ BRC-843D Hydrophobic Urethane Acrylate

APPLICATIONS

- Nail Gels
- Coatings and inks for Steel
- Coatings and inks for Plastic
- Coatings and inks for Glass

FEATURES

- Low MeHQ
- Improves Adhesion
- Enhances Hardness
- Non-Yellowing
- Low Water Absorption
- High Temperature Resistance

FEATURES

- Increases Weatherability
- Provides Abrasion Resistance
- Gloss Finish
- Provides Alkaline Resistance

Bomar™ BRC-843D is a difunctional, hydrophobic urethane acrylate which can be formulated to be used in heavy-duty industrial and commercial applications. The resulting tough film makes an effective, non-yellowing, protective single coating that extends the substrates use-life. The low water absorption and alkaline resistance make this oligomer perfect for the following industries: aerospace, appliance, automotive, cosmetic, electronic, industrial, medical device, metal finishing, and UV-curable inks & coatings. BRC-843D exhibits retention of mechanical properties after exposure to high temperatures (200°C for 30 minutes). In addition to the adhesion properties listed in the table below, BRC-843D also shows excellent adhesion to ABS, PVC, PMMA, and Polystyrene.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60°C)	4,150
Pt-Co (APHA) Color	30
Refractive Index (20°C)	1.48
Density, g/cm ³ (25°C)	1.07

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TP50	H50	HE30
BRC-843D	70	50	50	50	70
IBOA	30	50			
HEMA					30
TPGDA			50		
HDDA				50	
Omnirad™ 481	2	2	2	2	2
Viscosity, 25°C *	5,400	930	1,000	450	2,200

* Brookfield – CAP 2000+ @ 25°C

CURED MECHANICAL PROPERTIES

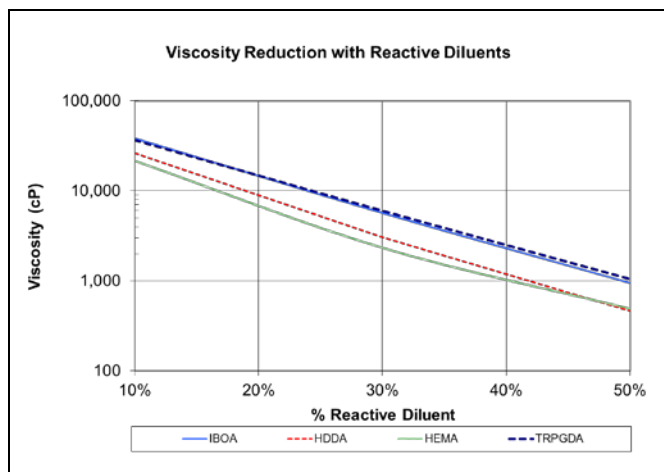
Property	I30	I50	TP50	H50	HE30
Tensile Strength, psi**	3,200	3,600	2,700	3,500	1,800
Elongation, %**	210	120	17	9	175
Elastic Modulus, ksi**	1.6	18	40	65	2
Durometer Hardness	60D	75D	70D	75D	60D
MEK Double Rubs (#)	10	15	50	80	50
Water Absorption (%)	0.4	0.3	0.5	0.4	1.5
T _g (DMA) =45 °C; Peak tan delta; cured with 2 phr of Omnirad™ 481					

** Per ASTM D882

ADHESION PROPERTIES

Substrate	I30	I50	TP50	H50	HE30
Aluminum	✓✓✓	✓✓✓	✓		✓✓✓
Cold Rolled Steel	✓✓✓	✓✓✓	✓	✓✓	✓✓✓
Glass	✓✓✓	✓✓✓			✓✓✓
HDPE					
Polycarbonate	✓✓	✓✓✓	✓✓✓	✓✓✓	✓
Stainless Steel	✓✓✓	✓✓✓	✓		✓✓✓

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended



Brookfield – CAP 2000+ @ 25°C

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