Bomar™ BRC-843
Hydrophobic Urethane Acrylate

APPLICATIONS

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

FEATURES & BENEFITS

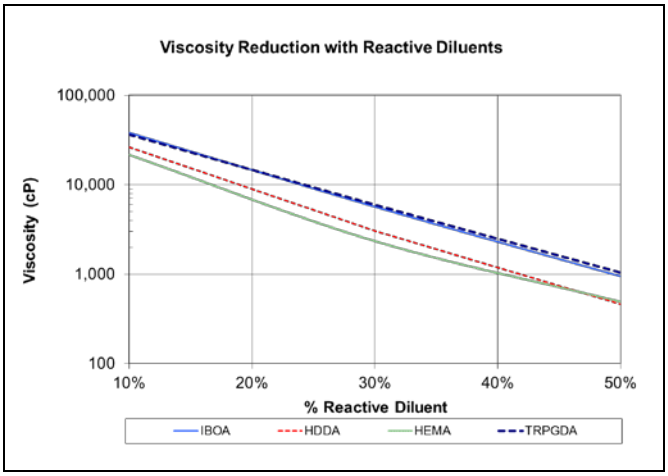
- Improves Adhesion
- Enhances Hardness
- Non-Yellowing
- Low Water Absorption
- High Temperature Resistance

FEATURES & BENEFITS

- Increases Weatherability
- Provides Abrasion Resistance
- Gloss Finish
- Provides Alkaline Resistance
- Low Skin Sensitivity

Bomar™ BRC-843 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-843 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-843 also shows excellent adhesion to ABS, PVC, PMMA, and Polystyrene. This material has low skin sensitivity for dental and cosmetic applications.

UNCURED PROPERTIES	
Property	**Value**
Viscosity, cP (25°C)	90,000
Pt-Co (APHA) Color or Gardner Color	29
Refractive Index (25°C)	1.48
Density, g/cm^3 (25°C)	1.09



Brookfield – CAP 2000+ @ 25°C

TYPICAL FORMULATIONS					
Test Formulation Name	**I30**	**I50**	**TP50**	**H50**	**HE30**
BRC-843	70	50	50	50	70
IBOA	30	50			
HEMA					30
TPGDA			50		
HDDA				50	
Omnirad™ 481	2	2	2	2	2
Viscosity, 25°C *	5,662	945	1,039	460	2,334

* Brookfield – CAP 2000+ @ 25°C

CURED MECHANICAL PROPERTIES					
Property	**I30**	**I50**	**TP50**	**H50**	**HE30**
Tensile Strength, psi**	1,350	1,300	1,150	1,200	1,000
Elongation, %**	180	70	13	5	160
Elastic Modulus, ksi**	0.8	8.0	21	32	1.0
Durometer Hardness	52D	70D	70D	72D	31D
MEK Double Rubs (#)	22	19	35	>200	62
Water Absorption (%)	0.4	0.3	0.6	0.5	2.5
T_g (DMA) = 32°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

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