

## Bomar® BRC-843S Hydrophobic Urethane Acrylate

**APPLICATIONS**

- **Coatings & Inks for Steel, Plastic, and Glass**

**FEATURES**

- **Improves Adhesion**
- **Enhances Hardness**
- **Non-Yellowing and High Gloss**
- **Low Water Absorption**

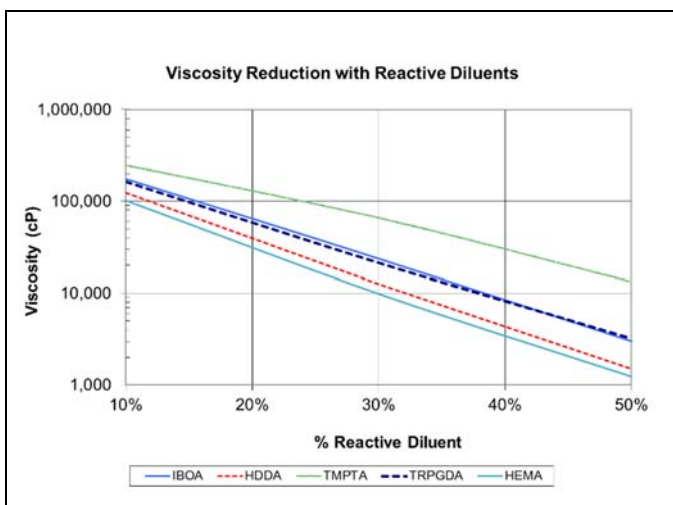
**FEATURES (Continued)**

- **High Temperature Resistance**
- **Increases Weatherability**
- **Provides Alkaline Resistance**

Bomar® BRC-843S 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 a functional, non-yellowing, protective single-coating that extends the substrates use-life. BRC-843S is a softer and more flexible version of BRC-843; it is also tougher. The low water absorption and alkaline resistance make this oligomer perfect for specialty applications in the following industries: aerospace, appliance, automotive, electronic, and medical device.

**UNCURED PROPERTIES**

Property	Value
Viscosity, cP (60°C)	40,000
Pt-Co (APHA) Color or Gardner Color	<100
Refractive Index (25°C)	1.480
Density, g/cm <sup>3</sup> (25°C)	1.1



Brookfield – CAP 2000+ @ 25°C

**TYPICAL FORMULATIONS**

Test Formulation Name	I30	I50	TP50	TM50	H50	HE30
BRC-843S	70	50	50	50	50	70
IBOA	30	50				
TMPTA				50		
TPGDA			50			
HDDA					50	
HEMA						30
Omnirad™ 481	2	2	2	2	2	2
Viscosity, 25°C *	23,600	3,000	3,200	13,300	1,500	9,900

\* Brookfield – CAP 2000+ @ 25°C

**CURED MECHANICAL PROPERTIES**

Property	I30	I50	TP50	TM50	H50	HE30
Tensile Strength, psi**	2,100	4,700	2,800	4,000	3,300	1,100
Elongation, %**	310	390	32	5.9	15	240
Elastic Modulus, ksi**	0.8	1.5	16	94	39	0.6
Durometer Hardness	36D	60D	61D	80D	66D	75D
Water Absorption, % (24 hrs)	0.4	0.28	0.61	0.56	0.51	3.73
MEK Double Rubs (#)	21	25	69	>200	195	18

 T<sub>g</sub> (DMA) = -9°C; Peak tan delta; cured with 2 phr of Irgacure® 184

\*\* Per ASTM D882

**ADHESION PROPERTIES**

Substrate	I30	I50	TP50	TM50	H50	HE30
Aluminum	✓✓	✓✓✓	✓			✓✓
Cold Rolled Steel	✓✓	✓✓✓	✓			✓✓
Glass	✓✓	✓✓✓	✓		✓✓	✓✓
HDPE						
Polycarbonate	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓	
PET	✓✓	✓✓✓			✓✓	✓✓
PMMA	✓✓	✓✓✓			✓✓✓	✓✓
Stainless Steel	✓✓	✓✓✓	✓			✓✓

✓ Recommended    ✓✓ Highly Recommended    ✓✓✓ Strongly Recommended

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