

## Bomar™ BR-990 Trifunctional Aliphatic Urethane Acrylate

### APPLICATIONS

- Coatings
- Inks

### FEATURES & BENEFITS

- Enhances Flexibility
- Provides Hardness & Strength
- Exhibits Hydrolytic Stability
- Abrasion Resistant

### FEATURES & BENEFITS

- Non-Yellowing
- Gloss Finish
- Improves Weatherability

Bomar™ BR-990, an aliphatic polyether urethane triacrylate, is a more flexible option from the BR-990 series of high-purity oligomers. BR-990 can be used effectively in performance coatings applications needing a greater degree of flexibility than is offered by higher functionality materials of the same product line. In addition, BR-990 offers one of the lowest viscosity profiles of any urethane acrylate.

### UNCURED PROPERTIES

Property	Value
Viscosity, cP (25°C)	35,000
Pt-Co (APHA) Color	50
Refractive Index (25°C)	1.492
Density, g/cm <sup>3</sup> (25°C)	1.20

### TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50
BR-990	70	50	50	50	50
IBOA	30	50			
TMPTA			50		
TPGDA				50	
HDDA					50
Omnirad™ 481	2	2	2	2	2
Viscosity, 25°C*	2,400	450	1,800	500	300

\* Brookfield – Small Samples Adapter

### CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50
Tensile Strength, psi**	2,050	3,360	2,165	2,135	2,655
Elongation, %**	50	27	9	7	3
Elastic Modulus, ksi**	19	126.9	55.4	59.3	95.9
Durometer Hardness	73D	74D	72D	62D	73D
Pencil Hardness <sup>‡</sup>	H	3H	B	2B	B
MEK Double Rubs (#)	48	25	107	26	>200

T<sub>g</sub> (DMA) = 21°C; Peak tan delta; cured with 2 phr of Omnirad™ 481.

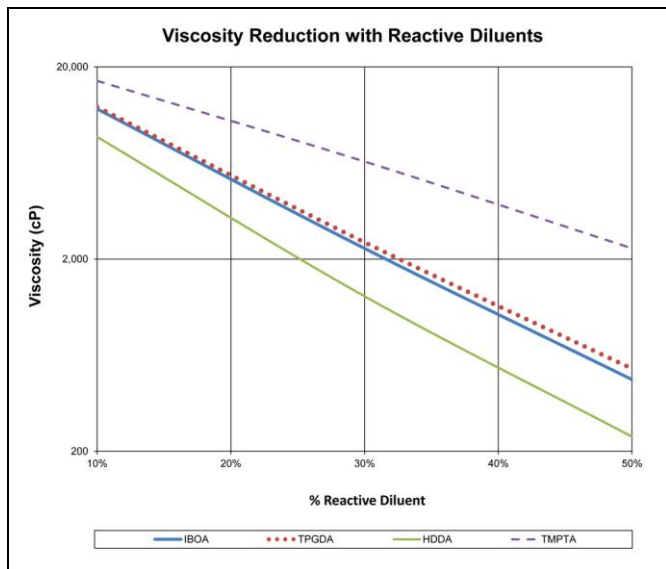
\*\* Per ASTM D882

<sup>‡</sup> Per ASTM D3363

### ADHESION PROPERTIES

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

✓ Recommended    ✓✓ Highly Recommended    ✓✓✓ Strongly Recommended



Brookfield – CAP2000+ @ 25°C

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