

Bomar[®] BR-582E8

2.4 Functional Aliphatic Polyether Urethane Acrylate

APPLICATIONS

- Coatings for plastics
- Coatings for metal

FEATURES

- Develops impact resistance
- Enhances flexibility
- Exhibits hydrolytic stability
- Provides weatherability

FEATURES

- Imparts toughness
- Great tensile strength
- Gloss finish

BR-582E8 is an aliphatic polyether urethane acrylate which provides a balance of toughness and flexibility. This oligomer is highly recommended for use in single-coat, flexible coatings on metal and plastic substrates. It is an excellent choice for impact and bend resistant coatings. BR-582E8 also brings desirable weather resistance and low-yellowing properties to formulations utilizing it.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60°C)	26,000
Pt-Co (APHA) Color	25
Refractive Index (25°C)	1.485
Density, g/cm ³ (25°C)	1.06

CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	800	2,400	2,600	2,100	2,100	700
Elongation, %**	90	110	2.2	13.6	5.9	80
Elastic Modulus, ksi**	2.9	45	140	55	65	3.6
Durometer Hardness	86A	57D	79D	61D	67D	70A
Water Absorption, % (24 hrs)	0.63	0.37	0.84	0.89	0.71	3.78
MEK Double Rubs (#)	81	17	>200	22	31	5
T _g (DMA) = 29°C; Peak tan delta; cured with 2 phr of Omnirad [®] 184						

** Per ASTM D882

ADHESION PROPERTIES

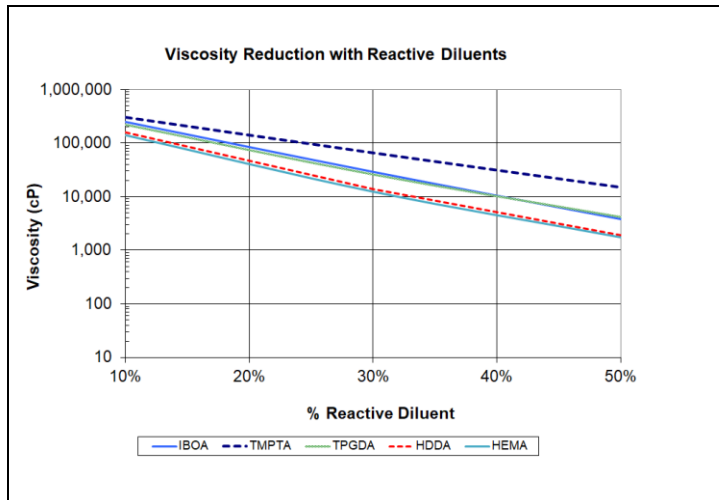
Substrate	I30	I50	TM50	TP50	H50	HE30
ABS			✓✓✓		✓✓	✓
Aluminum		✓✓				
Cold Rolled Steel		✓				✓✓
Glass		✓✓				
HDPE						
PET	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓
PMMA		✓✓		✓		
Polycarbonate	✓✓	✓✓✓	✓✓✓	✓✓	✓✓	
Polypropylene		✓				✓
PVC	✓✓	✓✓✓	✓✓✓	✓✓	✓✓✓	
Stainless Steel		✓				

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-582E8	70	50	50	50	50	70
IBOA	30	50				
TMPTA			50			
TPGDA				50		
HDDA					50	
HEMA						30
Omnirad [™] 184	2	2	2	2	2	2
Viscosity, 25°C *	29,000	3,800	15,000	4,200	1,900	12,000

* Brookfield – CAP 2000+ @ 25°C.



Brookfield – CAP 2000+ @ 25°C

GENERAL INFORMATION

This product is intended for industrial use only. Keep out of the reach of children. Avoid breathing vapors. Avoid contact with skin, eyes, and clothing. Wear impervious gloves. Repeated or continuous skin contact with uncured material may cause irritation. Remove material from skin with soap and water. Never use organic solvents to remove material from skin and eyes. For more information on the safe handling of this material, please refer to the I Safety Data Sheet before use.

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