

Bomar[®] BR-144B Trifunctional Aliphatic Polyether Urethane Acrylate

APPLICATIONS

- Wood floor coatings
- Furniture coatings
- Graphic arts

FEATURES

- Rapid cure speed
- Exhibits hydrolytic stability/weatherability
- Low color/low yellowing
- Provides solvent resistance

FEATURES

- High gloss
- Improves abrasion resistance
- Low MeHQ levels
- Low skin irritation and sensitivity

BR-144B, a medium molecular weight, trifunctional, aliphatic polyether urethane acrylate oligomer, offers the formulator a cost effective means of obtaining high abrasion resistance and solvent resistance in a durable, high-gloss coating. While not limited to these fields, BR-144B is an effective choice in wood and furniture applications, along with abrasion-resistant overprint varnishes. This material has low skin sensitivity for dental and cosmetic applications.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60°C)	23,000
Pt-Co (APHA) Color	15
Refractive Index (25°C)	1.485
Density, g/cm ³ (25°C)	1.03

CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	5,200	7,500	6,500	4,300	5,300	3,200
Elongation, %**	6.7	4.7	2.7	9.7	3.9	30
Elastic Modulus, ksi**	270	330	340	200	210	170
Durometer Hardness	80D	77D	84D	79D	83D	84D
Water Absorption, % (24 hrs)	0.45	0.33	0.57	0.75	0.51	2.28
MEK Double Rubs (#)	14	7	>200	60	170	70

T_g (DMA) = 56°C; Peak tan delta; cured with 2 phr of Omnirad[®] 184

** Per ASTM D882

ADHESION PROPERTIES

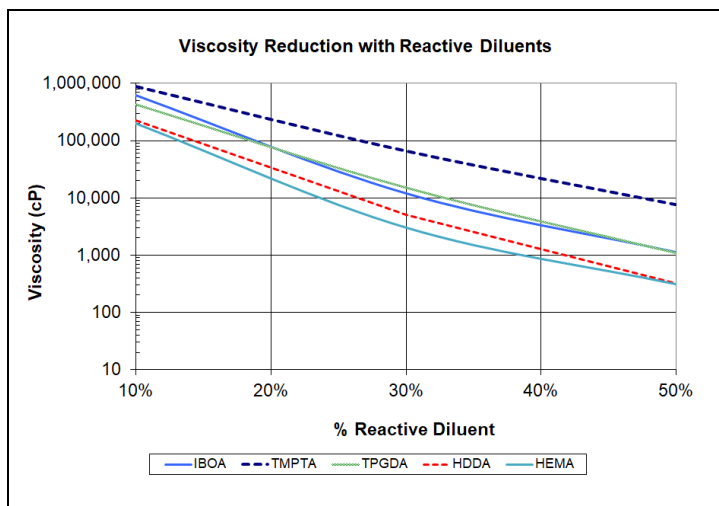
Substrate	I30	I50	TM50	TP50	H50	HE30
ABS			✓		✓✓	✓
Aluminum						✓
Cold Rolled Steel	✓					
Glass	✓✓	✓✓				✓✓✓
HDPE						
PET	✓✓✓	✓✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓
PMMA	✓		✓✓✓	✓✓✓	✓✓✓	✓✓✓
Polycarbonate		✓		✓	✓✓✓	✓✓
Polypropylene						
PVC	✓		✓			✓
Stainless Steel						

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-144B	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 *	12,000	1,100	7,600	1,100	300	3,100

* 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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