

Bomar® BR-7432GB Difunctional Aliphatic Polyester Urethane Acrylate

APPLICATIONS

- Impact resistant coatings
- Thermoforming coatings and inks
- Nail gel coatings
- High impact 3D printing resins

FEATURES

- Imparts toughness and impact resistance
- Low Tg
- Excellent adhesion to a variety of substrates
- Excellent cure response in LED conditions

FEATURES

- Adheres to polymer films
- Elastomeric
- Provides abrasion resistance
- Excellent weatherability

BR-7432GB, an aliphatic polyester urethane diacrylate, formulates into applications requiring adhesion to various substrates and applications such as thermoforming resistant coatings where toughness and flexibility are required. BR-7432GB provides excellent balance of weathering, solvent resistance, tensile strength, and adhesion properties. BR-7432GB is an incredibly tough, elastomeric material with similar mechanical performance to cast urethanes, and can provide excellent impact resistance and weatherability to formulations. BR-7432GB also has low MeHQ for nail gel polish applications.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60°C)	88,000
Pt-Co (APHA) Color	15
Refractive Index (25°C)	1.549
Density, g/cm ³ (25°C)	1.160

CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	1,400	2,400	3,300	1,400	1,900	400
Elongation, %**	190	190	4.0	19.0	9.0	230
Elastic Modulus, ksi**	3.2	8.2	110	25	45	1.3
Durometer Hardness	65A	43D	78D	56D	63D	57A
Water Absorption, % (24 hrs)	1.04	0.62	0.84	1.01	0.75	3.38
MEK Double Rubs (#)	180	17	>200	143	140	40

T_g (DMA) = -4°C; Peak tan delta; cured with 2 phr of Irgacure® 184

** Per ASTM D882

ADHESION PROPERTIES

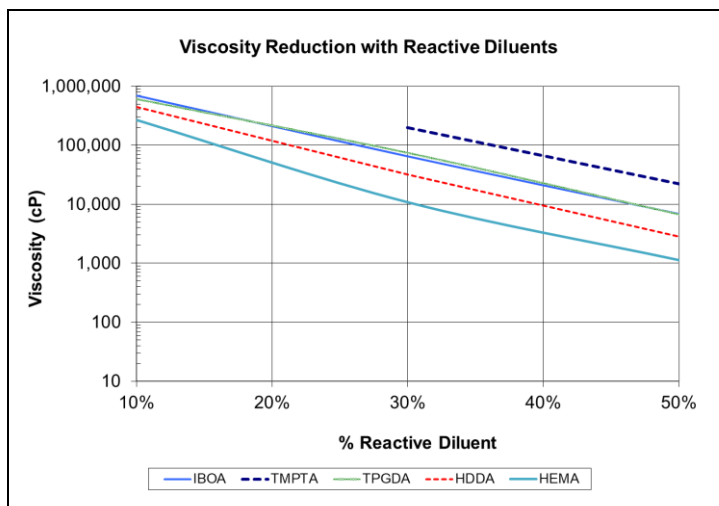
Substrate	I30	I50	TM50	TP50	H50	HE30
ABS	✓✓	✓	✓✓✓	✓✓	✓✓✓	✓✓
Aluminum						
Cold Rolled Steel						✓
Glass						
HDPE						
PET	✓✓	✓✓✓	✓✓✓	✓✓	✓✓✓	✓✓
PMMA	✓	✓	✓	✓✓	✓✓✓	✓
Polycarbonate	✓✓	✓✓✓	✓✓	✓✓	✓✓✓	
PVC	✓			✓✓✓	✓✓✓	
Stainless Steel						✓

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-7432GB	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 *	65,000	6,900	22,000	6,700	2,800	11,000

* 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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