

Bomar[®] BR-952 Difunctional Aliphatic Urethane Methacrylate

APPLICATIONS

- Predominant resin for nail coatings
- Scratch resistant coatings
- Light curable dental composite resins
- Rigid 3D printing resin

FEATURES

- Fast curing
- Low in color
- Provides toughness and high tensile strength
- Low MeHQ content

FEATURES

- High gloss
- Tin-free
- Low viscosity
- High Tg and HDT

BR-952 is an aliphatic urethane dimethacrylate. The low viscosity allows for ease of use in coating applications for the nail care and 3D printing industries. BR-952 can be used to provide a high gloss, tough coating or 3D printed part. This material is also used in coatings for construction applications when improved toughness is desired for excellent durability. BR-952 provides an inherently high HDT of 143°C and a Tg of 159°C, and is inherently tin-free.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (25°C)	7,200
Pt-Co (APHA) Color	10
Refractive Index (25°C)	1.480
Density, g/cm ³ (25°C)	1.100

CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	10,800	9,200	8,300	9,600	7,800	10,900
Elongation, %**	5.4	5.4	2.0	4.0	3.3	5.5
Elastic Modulus, ksi**	380	360	440	390	320	430
Durometer Hardness	89D	88D	94D	89D	89D	90D
Water Absorption, % (24 hrs)	0.23	0.20	0.34	0.37	0.28	0.53
MEK Double Rubs (#)	>200	>200	>200	>200	>200	>200

T_g (DMA) = 153°C; Peak tan delta; cured with 2 phr of Irgacure[®] 184

** Per ASTM D882

ADHESION PROPERTIES

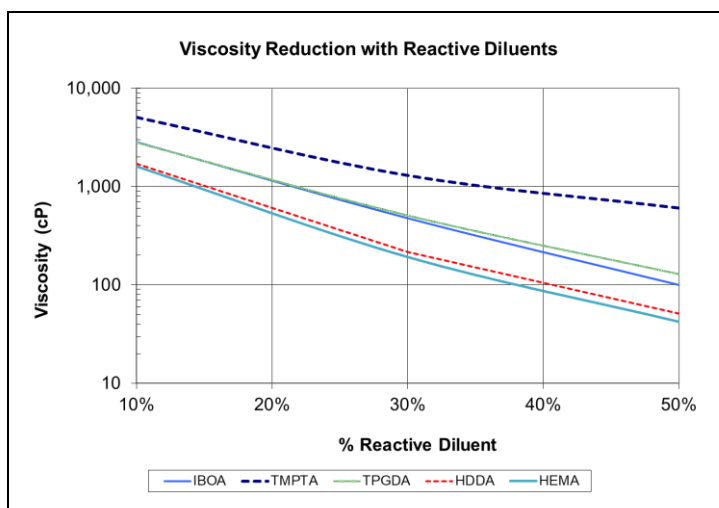
Substrate	I30	I50	TM50	TP50	H50	HE30
ABS	✓		✓✓✓	✓	✓✓✓	✓✓
Aluminum						
Cold Rolled Steel						
Glass						
HDPE						
PET	✓	✓✓	✓✓	✓✓	✓✓✓	✓✓✓
PMMA	✓		✓✓✓	✓✓	✓✓	✓✓
Polycarbonate			✓✓✓	✓	✓✓✓	
PVC	✓		✓✓✓	✓	✓✓✓	
Stainless Steel						

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-952	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 *	500	100	600	130	50	190

* 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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