

Bomar[®] BR-970H Difunctional Aliphatic Urethane Acrylate

APPLICATIONS

- Inkjet printing
- Graphic arts
- High HDT 3D printing resins
- Automotive coatings

FEATURES

- Very low viscosity
- High modulus
- Improved HDT vs BR-970BT
- Hydrolytic stability

FEATURES

- Rapid cure
- Non-yellowing
- Abrasion and chemical resistance
- Stain resistance

BR-970H is a low viscosity, difunctional, aliphatic urethane acrylate. BR-970H has high modulus and doesn't necessarily need to be blended with other oligomers to achieve a balance of toughness and flexibility. BR-970H offers rapid cure and non-yellowing properties where premium performance is required. This oligomer is perfect for 2D and 3D inkjet applications as well for use in graphic arts application.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (25°C)	24,000
Pt-Co (APHA) Color	65
Refractive Index (25°C)	1.490
Density, g/cm ³ (25°C)	1.20

CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	4,600	5,400	6,400	3,900	4,700	3,400
Elongation, %**	6.5	4.5	3.3	11	5.2	10
Elastic Modulus, ksi**	210	220	280	200	180	200
Durometer Hardness	83D	84D	90D	84D	83D	82D
Water Absorption, % (24 hrs)	0.26	0.20	0.35	0.39	0.31	1.39
MEK Double Rubs (#)	34	15	>200	154	>200	40
T _g (DMA) = 70°C; Peak tan delta; cured with 2 phr of Omnirad [®] 184						

** Per ASTM D882

ADHESION PROPERTIES

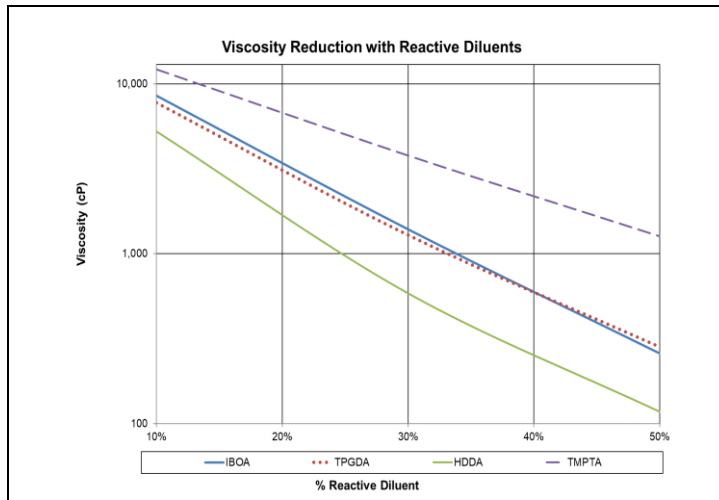
Substrate	I30	I50	TM50	TP50	H50	HE30
ABS						
Aluminum						
Cold Rolled Steel					✓	✓✓
Glass		✓				✓✓✓
HDPE						
PET	✓	✓	✓✓	✓	✓	✓✓
PMMA						
Polycarbonate	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓
Polypropylene						
PVC						
Stainless Steel	✓	✓		✓	✓	✓✓✓

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-970H	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 *	1,400	260	1,300	280	120	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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