

Bomar[®] BR-371S

Difunctional Aliphatic Polyether Urethane Acrylate

APPLICATIONS

- Wood coatings
- Rigid plastic coatings
- Hard gel nail coatings

FEATURES

- High tensile strength
- Superior hardness
- Excellent adhesion to plastics

FEATURES

- Low color
- Fast cure speeds
- Optical clarity

BR-371S, a low molecular weight, difunctional, aliphatic polyether urethane acrylate oligomer, is a great fit for coatings that require high tensile strength, superior hardness, scratch resistance, and weathering resistance. Formulations with BR-371S yield hard, clear, low-yellowing films.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60°C)	67,000
Pt-Co (APHA) Color	0
Refractive Index (25°C)	1.497
Density, g/cm ³ (25°C)	1.10

CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	6,000	5,500	5,600	4,500	4,600	5,500
Elongation, %**	4.3	4.1	2.6	4.2	3.7	4.1
Elastic Modulus, ksi**	250	230	290	210	190	250
Durometer Hardness	86D	87D	92D	85D	84D	88D
Water Absorption, % (24 hrs)	0.21	0.15	0.25	0.31	0.24	0.76
MEK Double Rubs (#)	>200	100	>200	>200	>200	>200
T _g (DMA) = 86°C; Peak tan delta; cured with 2 phr of Omnirad [®] 184						

** Per ASTM D882

ADHESION PROPERTIES

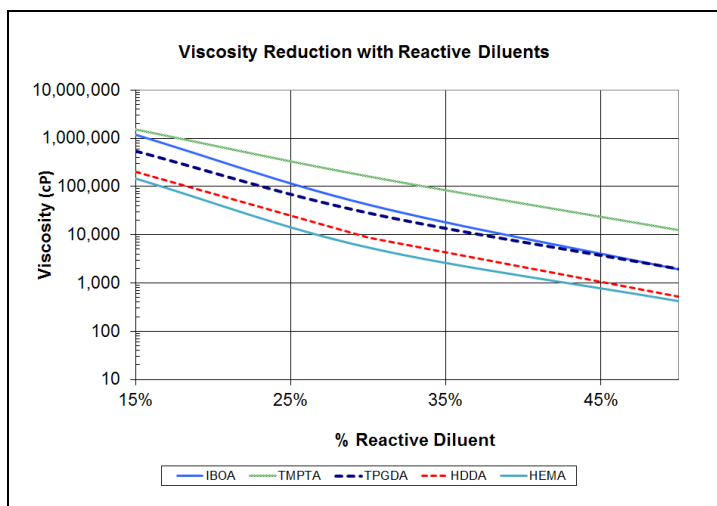
Substrate	I30	I50	TM50	TP50	H50	HE30
ABS	✓	✓	✓✓✓	✓✓	✓✓✓	✓
Aluminum						
Cold Rolled Steel		✓✓		✓✓	✓✓	✓
Glass						
HDPE						
PET	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
PMMA			✓✓✓	✓✓	✓✓	
Polycarbonate		✓✓	✓✓✓	✓✓	✓✓✓	
Polypropylene						
PVC	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓
Stainless Steel		✓		✓		✓

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-371S	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 *	42,000	1,900	12,000	1,900	500	5,500

* 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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