

Bomar™ BR-541S Polyether Urethane Acrylate

APPLICATIONS

- **Hard Glossy Coatings**
- **Scratch-Resistant Coatings**
- **Inks**
- **OPV**

FEATURES

- **Color Stable**
- **Optically Clear**
- **Fast Cure Rates**
- **Improves Adhesion**

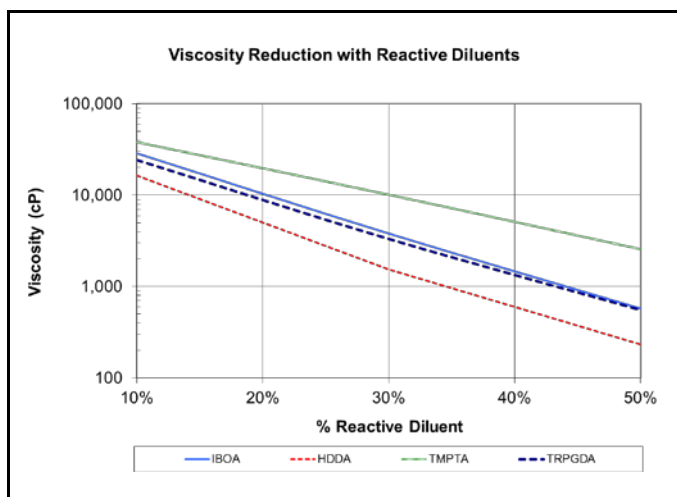
FEATURES

- **Gloss Finish**
- **Weatherability**

Bomar™ BR-541S is a difunctional, polyether urethane acrylate that is used for its desirable balance of toughness and flexibility. It adheres readily to a variety of substrates including cold rolled steel, glass, PC, and stainless steel. It is an excellent choice for impact-resistant coatings. BR-541S is desirable for use in cosmetic applications where color stability and optically clear tough coatings are needed.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60 °C)	3,000
Pt-Co (APHA) Color or Gardner Color	<50
Refractive Index (25°C)	1.49
Density, g/cm ³ (25°C)	1.06



Brookfield – CAP 2000+ @ 25°C

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TP50	TM50	H50	HE30
BR-541S	70	50	50	50	50	70
IBOA	30	50				
TMPTA				50		
TPGDA			50			
HDDA					50	
HEMA						30
Omnirad™ 481	2	2	2	2	2	2
Viscosity, 25°C *	3,800	575	550	2,550	230	1,300

* Brookfield – CAP 2000+ @ 25°C

CURED MECHANICAL PROPERTIES

Property	I30	I50	TP50	TM50	H50	HE30
Tensile Strength, psi**	3,100	3,400	3,500	5,200	3,850	2,800
Elongation, %**	120	80	17	4	9	140
Elastic Modulus, ksi**	7	70	50	150	75	4
Durometer Hardness	62D	77D	75D	87D	76D	35D
Water Absorption (24 hrs)	0.52	0.32	0.66	0.48	0.48	2.67
MEK Double Rubs (#)	18	9	21	>200	40	6

T_g (DMA) = 44°C; Peak tan delta; cured with 2 phr of Omnirad™ 481

** Per ASTM D882

ADHESION PROPERTIES

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

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

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