

Bomar[®] BR-543 Difunctional Aliphatic Polyether Urethane Acrylate

APPLICATIONS

- Foil coatings
- Optical coatings on polycarbonate
- Weather-resistant coatings

FEATURES

- Enhances flexibility
- Abrasion resistant
- Exhibits hydrolytic stability
- Provides oil and chemical resistance

FEATURES

- High clarity
- High tensile strength
- Provides excellent weatherability

BR-543 is a difunctional, aliphatic, polyether urethane acrylate. Films formulated with BR-543 exhibit superior physical and weathering capabilities. BR-543 may also be used to improve the flexibility, weathering, and adhesion characteristics of existing film and foil coatings.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60°C)	13,000
Pt-Co (APHA) Color	20
Refractive Index (25°C)	1.477
Density, g/cm ³ (25°C)	1.03

CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	480	1,300	2,900	1,600	2,400	450
Elongation, %**	85	130	4.1	10.9	10.8	95
Elastic Modulus, ksi**	1.2	9.7	100	35	50	1.8
Durometer Hardness	56A	74A	63D	43D	54D	42A
Water Absorption, % (24 hrs)	0.86	0.55	1.31	1.23	1.00	4.68
MEK Double Rubs (#)	6	3	46	16	15	10

T_g (DMA) = -47°C; Peak tan delta; cured with 2 phr of Omnirad[™] 184

** Per ASTM D882

ADHESION PROPERTIES

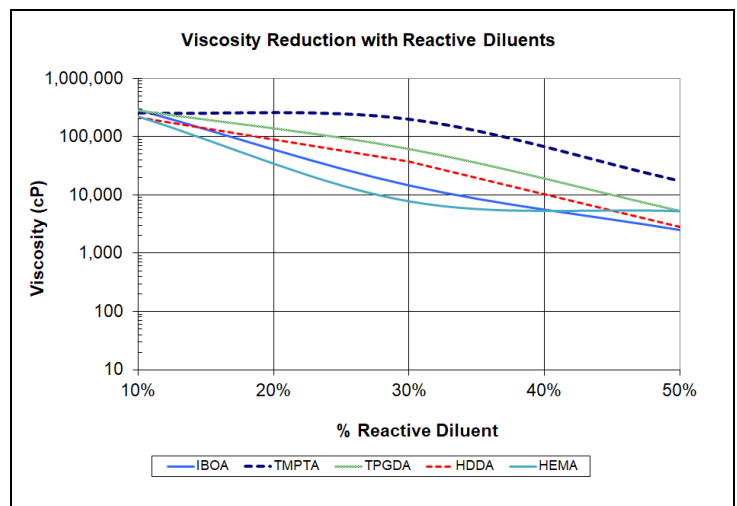
Substrate	I30	I50	TM50	TP50	H50	HE30
ABS		✓✓	✓✓✓		✓	
Aluminum						
Cold Rolled Steel		✓✓				
Glass						
HDPE						
PET		✓✓	✓✓✓	✓✓	✓✓✓	
PMMA	✓	✓✓✓	✓✓✓			
Polycarbonate	✓	✓✓✓	✓✓✓	✓✓	✓✓✓	
Polypropylene						
PVC	✓	✓✓✓	✓✓✓		✓✓✓	
Stainless Steel		✓✓				✓

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-543	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 *	14,000	2,500	17,000	5,300	2,800	7,900

* 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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