

Bomar[®] BR-541MB Polyether Urethane Methacrylate

APPLICATIONS

- Nail Coatings
- Optically Clear Coatings
- Scratch Resistant Coatings
- Hard, Glossy Coatings

FEATURES

- High Tensile Strength
- Excellent Optical Clarity
- Exhibits Hydrolytic Stability

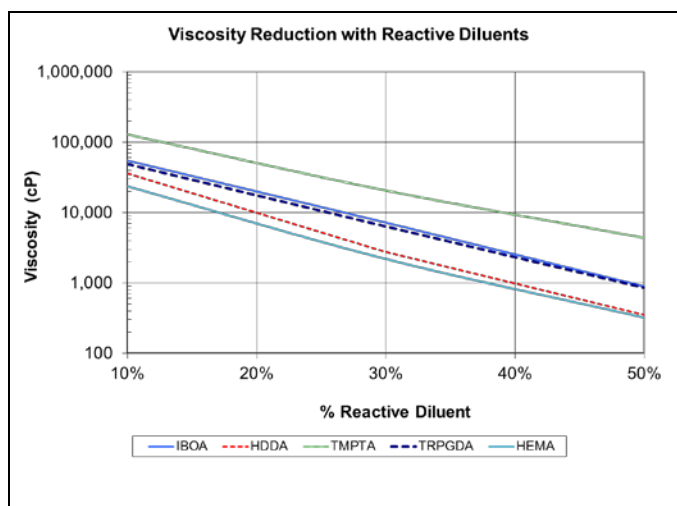
FEATURES

- Low Skin Sensitivity
- Improved Adhesion
- Provide Weatherability

BOMAR[®] BR-541MB is a difunctional, aliphatic polyether urethane methacrylate. BR-541MB is used for its desirable balance of toughness and flexibility and its ability to adhere to a variety of substrates. This oligomer is an excellent candidate to consider for use in impact-resistant coatings on various substrates when used with BR-543MB. This material has low skin sensitivity, and is INCI registered for compliance in cosmetic applications.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60 °C)	6,800
Pt-Co (APHA) Color	20
Refractive Index (25 °C)	1.49
Density, g/cm ³ (25°C)	1.07



Brookfield – CAP 2000+ @ 25°C

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TP50	TM50	H50	HE30
BR-541MB	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 *	7,181	889	855	4,375	350	2,182

* Brookfield – CAP 2000+ @ 25°C

CURED MECHANICAL PROPERTIES

Property	I30	I50	TP50	TM50	H50	HE30
Tensile Strength, psi**	2,684	2,503	2,574	4,506	3,139	2,239
Elongation, %**	63	25	10	3.4	5.7	49
Elastic Modulus, ksi**	125	176	114	208	121	113
Durometer Hardness	80D	81D	77D	89D	80D	80D
Water Absorption, % (24 hrs)	0.48	0.33	0.67	0.58	0.48	2.04
MEK Double Rubs (#)	37	45	40	>200	110	16

T_g (DMA) = 74°C; Peak tan delta; cured with 2 phr of Irgacure[®] 481

** Per ASTM D882

ADHESION PROPERTIES

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

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

© 2016 Dymax Corporation. All rights reserved. All trademarks in this guide, except where noted, are the property of, or used under license by Dymax Corporation, U.S.A. Irgacure[®] is a trademark of BASF Corporation.

Technical data provided is of a general nature and is based on laboratory test conditions. Dymax does not warrant the data contained in this bulletin. Any warranty applicable to the product, its application and use is strictly limited to that contained in Dymax standard Conditions of Sale published on our website. Dymax does not assume responsibility for test or performance results obtained by users. It is the user's responsibility to determine the suitability for the product application and purposes and the suitability for use in the user's intended manufacturing apparatus and methods. The user should adopt such precautions and use guidelines as may be reasonably advisable or necessary for the protection of property and persons. Nothing in this communication shall act as a representation that the product use or application will not infringe on a patent owned by someone other than Dymax or act as a grant of license under any Dymax Corporation Patent. Dymax recommends that each user adequately test its proposed use and application before actual repetitive use, using the data in this communication as a general guideline.

Dymax Corporation
860.482.1010 | info@dymax.com | www.dymax.com

Dymax Europe GmbH
+49 (0) 611.962.7900 | info_de@dymax.com | www.dymax.de

Dymax Engineering Adhesives Ireland Ltd.
+353.1.231.4696 | info_ie@dymax.com | www.dymax.ie

Dymax Oligomers & Coatings
860.626.7006 | info_oc@dymax.com | www.dymax-oc.com

Dymax UV Adhesives & Equipment (Shanghai) Co. Ltd.
+86.21.37285759 | dymaxasia@dymax.com | www.dymax.com.cn

Dymax UV Adhesives & Equipment (Shenzhen) Co. Ltd.
+86.755.83485759 | dymaxasia@dymax.com | www.dymax.com.cn

Dymax Asia (H.K.) Limited
+852.2460.7038 | dymaxasia@dymax.com | www.dymax.com.cn

Dymax Asia Pacific Pte. Ltd.
+65.6752.2887 | info_ap@dymax.com | www.dymax-ap.com

Dymax Korea LLC
+82.2.784.3434 | info_kr@dymax.com | www.dymax.com/kr