

Bomar[®] BR-742MS

Difunctional Aliphatic Polyester Urethane Methacrylate

APPLICATIONS

- Nail Gel Color Coats
- Nail Gel Top Coats
- Nail Art Gels

FEATURES

- Undetectable MeHQ Levels (<10 ppm)
- Fast Acetone Soak-off
- Good Balance of Toughness and Elongation

FEATURES

- Low Color
- Glossy Finish
- Low Heat Generation

BR-742MS is a variant of BR-742M with non-detectable (<10 ppm) MeHQ content to comply with regulatory requirements for both salon and retail nail coating applications in Europe. This oligomer has an excellent balance of gloss, low color, removability, durability, and low heat generation during the cure process.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60°C)	25,000
Pt-Co (APHA) Color	23
Refractive Index (25°C)	1.480
Density, g/cm ³ (25°C)	1.110

CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	2,300	3,200	5,600	3,100	4,400	2,600
Elongation, %**	65	65	3.0	8.0	7.0	100
Elastic Modulus, ksi**	70	170	220	100	120	65
Durometer Hardness	81D	84D	90D	81D	82D	80D
Water Absorption, % (24 hrs)	0.31	0.21	0.39	0.49	0.36	1.43
MEK Double Rubs (#)	10	7	>200	15	70	45

T_g (DMA) = 58°C; Peak tan delta; cured with 2 phr of Irgacure[®] 184

** Per ASTM D882

ADHESION PROPERTIES

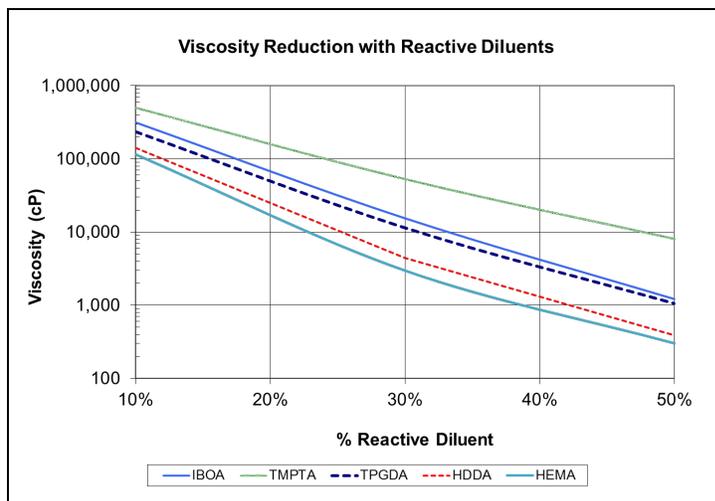
Substrate	I30	I50	TM50	TP50	H50	HE30
ABS	✓	✓✓	✓✓	✓	✓✓✓	✓✓
Aluminum						
Cold Rolled Steel		✓✓		✓		
Glass						
HDPE						
PET	✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓
PMMA				✓	✓	
Polycarbonate		✓		✓	✓✓✓	
Polypropylene						
PVC	✓✓✓			✓	✓✓	✓✓
Stainless Steel	✓✓✓	✓✓✓	✓✓✓		✓	

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-742MS	70	50	50	50	50	70
IBOA	30	50				
TMPTA			50			
TPGDA				50		
HDDA					50	
HEMA						30
Irgacure [®] 184	2	2	2	2	2	2
Viscosity, 25°C *	18,000	1,400	8,900	1,400	400	3,500

* Brookfield – CAP 2000+ @ 25°C.



Brookfield – CAP 2000+ @ 25°C

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