

## Bomar<sup>®</sup> BR-742MS

Polyester Urethane Methacrylate

**APPLICATIONS**

- Gel polish Hybrid

**FEATURES**

- Fast acetone soak-off
- Very low diluted viscosity

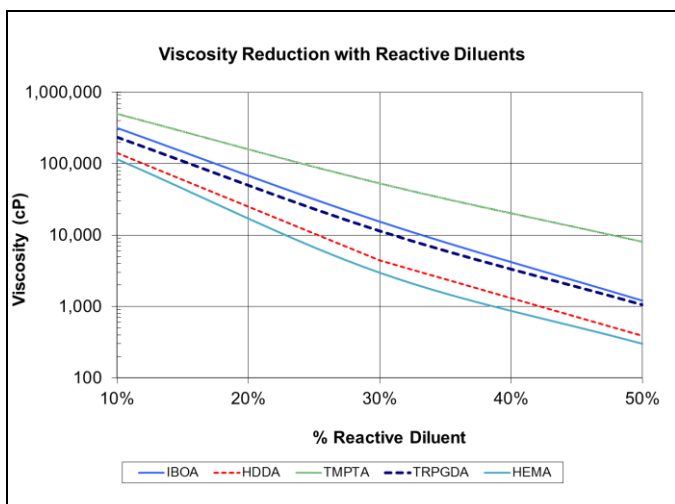
**FEATURES**

- Low APHA color
- High gloss
- Low MeHQ levels

Bomar<sup>®</sup> BR-742MS is an oligomer that provides excellent acetone removability when used in gel polish hybrid applications. Low heat generation occurs during cure without lamps. The resultant coating also has high gloss, and has low APHA color impact. Furthermore, this oligomer was designed to meet regulatory expectations for retail applications in Europe.

**UNCURED PROPERTIES**

Property	Value
Viscosity, cP (60°C)	30,000
Pt-Co (APHA) Color or Gardner Color	<50
Refractive Index (25°C)	1.485
Density, g/cm <sup>3</sup> (25°C)	1.1



Brookfield – CAP 2000+ @ 25°C

**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 <sup>®</sup> 184	2	2	2	2	2	2
Viscosity, 25°C *	15,500	1,200	8,000	1,000	400	3,000

\* Brookfield – CAP 2000+ @ 25°C

**CURED MECHANICAL PROPERTIES**

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	2000	2400	3800	2300	3000	1850
Elongation, %**	63	19	3	10	7	67
Elastic Modulus, ksi**	91	154	192	9	110	84
Durometer Hardness	78D	80D	89D	74D	79D	80D
Water Absorption, % (24 hrs)	0.28	0.18	0.34	0.43	0.31	1.47
MEK Double Rubs (#)	12	5	>200	26	77	16
T <sub>g</sub> (DMA) = 67°C; Peak tan delta; cured with 2 phr of Irgacure <sup>®</sup> 184						

\*\* Per ASTM D882

**ADHESION PROPERTIES**

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

✓ Recommended    ✓✓ Highly Recommended    ✓✓✓ Strongly Recommended

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