

## Bomar<sup>®</sup> BRC-4434SD Hydrophobic Urethane Methacrylate

**APPLICATIONS**

- **Nail Coatings**

**FEATURES**

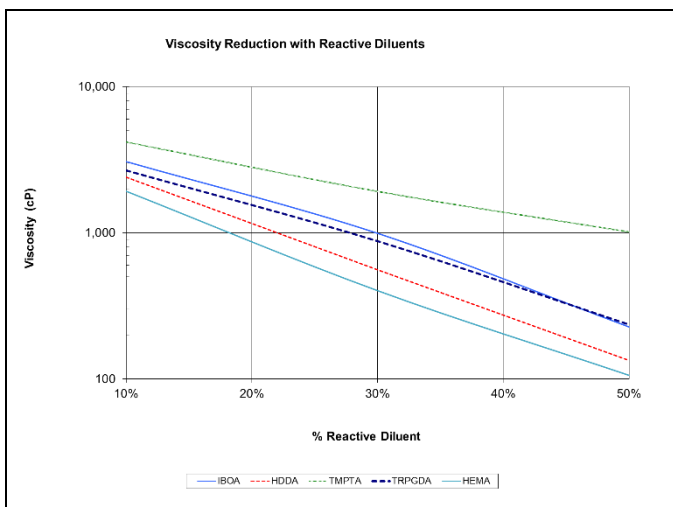
- **Fast acetone soak-off**
- **Low heat generation**
- **Tack-free cure**
- **Very low viscosity**

**FEATURES**

- **Low APHA color**
- **High gloss**
- **Low MeHQ levels**

Bomar<sup>®</sup> BR-4434SD is an oligomer that provides excellent acetone removability when used in gel polish hybrid applications. Low heat generation occurs during light cure. The resultant coating also has high gloss, and has low APHA color impact. Tack-free cure is possible when formulated with film formers. Furthermore, this oligomer was designed to meet regulatory expectations for retail applications in Europe.

UNCURED PROPERTIES	
Property	Value
% solids (solvent: Ethyl Acetate)	75%
Viscosity, cP ( 25°C)	6,000
Pt-Co (APHA) Color or Gardner Color	30
Refractive Index (25°C)	1.46
Density, g/cm <sup>3</sup> (25°C)	1.00



Brookfield – CAP 2000+ @ 25°C

**TYPICAL FORMULATIONS**

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-4434SD	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 *	990	230	1,000	235	135	400

\* Brookfield – CAP 2000+ @ 25°C

**CURED MECHANICAL PROPERTIES**

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	2,000	2,200	4,300	2,300	3,700	1,000
Elongation, %**	2	2	3	2	4	34
Elastic Modulus, ksi**	141	156	223	156	150	77
Durometer Hardness	50D	75D	85D	75D	80D	65D
Water Absorption, % (24 hrs)	0.12	0.14	0.36	0.40	0.25	1.58
MEK Double Rubs (#)	6	2	80	35	22	78

T<sub>g</sub> (DMA) = 99°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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