

## BOMAR<sup>®</sup> XDT-1018 Dendritic Acrylate Oligomer

**APPLICATIONS**

- **Hard, Protective Coatings**
- **Overprint Varnishes**
- **Printing Inks**

**FEATURES & BENEFITS**

- **Enhances Chemical Resistance**
- **Low Diluted Viscosity**
- **Abrasion & Scratch Resistant**

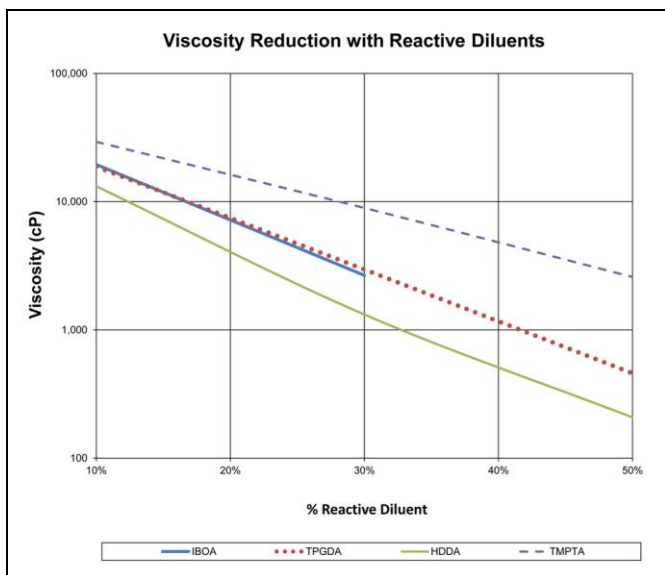
**FEATURES & BENEFITS**

- **Provides Thermal Resistance**
- **Rapid Cure**
- **Low Shrinkage**
- **Low Oxygen Inhibition**
- **Tin Free**

BOMAR<sup>®</sup> XDT-1018 is a dendritic acrylate with an average functionality of 18. The hyper-branched structure of XDT-1018 imparts the unique combination of low diluted viscosity with unmatched chemical and thermal resistance. XDT-1018 is ideal in applications where withstanding exposure to the harshest conditions is paramount. Great for high-temperature applications because thermogravimetric analysis indicates the oligomer doesn't decompose until 350 °C.

**UNCURED PROPERTIES**

Property	Value
Viscosity, cP (25°C)	50,000
Color, APHA	<50
Refractive Index (20°C)	1.510
Density, g/cm <sup>3</sup> (25°C)	1.15



Brookfield – CAP2000 + @ 25°C

**TYPICAL FORMULATIONS**

Test Formulation Name	I30	I50	H50	TP50	TM50
XDT-1018	70	50	50	50	50
IBOA	30	50			
TMPTA					50
TPGDA				50	
HDDA			50		
Omnirad™ 481	2	2	2	2	2
Viscosity, 25°C*	3,100	325	275	425	425

\* Brookfield – CAP2000 + @ 25°C

**CURED MECHANICAL PROPERTIES**

Property	I30	I50	H50	TP50	TM50
Tensile Strength, psi**	3,805	Not Tested	5,045	4,765	8,055
Elongation, %**	5		5	6	4
Elastic Modulus, ksi**	151		128	228	218
Durometer Hardness	80D	88D	83D	80D	83D
MEK Double Rubs (#)	>200	174	>200	180	>200
T <sub>g</sub> (DMA) = 46°C; Peak tan delta, cured with 2 phr of Omnirad™ 481					
Temperature at 95% Weight Retention (cured with 2 phr of Omnirad™ 481) = 350°C					

\*\* Per ASTM D882

**ADHESION PROPERTIES**

Substrate	I30	I50	H50	TP50	TM50
ABS	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Acrylic		✓✓	✓✓	✓✓✓	
Aluminum	✓	✓✓✓		✓✓✓	
Cold Rolled Steel	✓✓	✓✓	✓✓	✓	
Glass		✓✓✓			
HDPE					
Polycarbonate	✓✓✓	✓✓✓	✓✓✓	✓✓✓	
Stainless Steel	✓✓	✓✓✓		✓✓	

✓ Recommended    ✓✓ Highly Recommended    ✓✓✓ Strongly Recommended

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