

Bomar[®] BDT-1015 Dendritic Acrylate Oligomer

APPLICATIONS

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

FEATURES

- **Low Shrinkage and Warpage**
- **Excellent Scratch Resistance**
- **Excellent Chemical Resistance**
- **Excellent Stain Resistance**

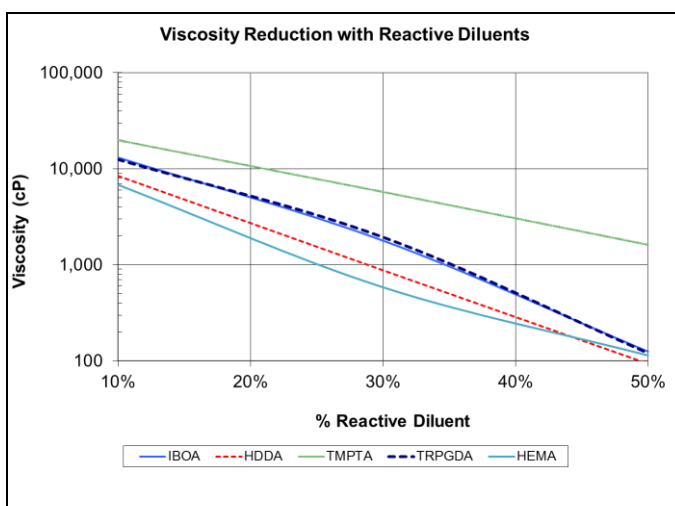
FEATURES

- **Rapid Cure Rate**
- **Low Oxygen Inhibition**
- **Tin Free**

Bomar[®] BDT-1015 is a dendritic acrylate with an average functionality of 15. The hyper-branched structure of BDT-1015 imparts a unique combination of low diluted viscosity with unmatched chemical and thermal resistance. This is ideal in applications where withstanding exposure to the hardest of conditions is paramount. BDT-1015 is also great for high-temperature applications.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (25°C)	31,275
Pt-Co (APHA) Color	20
Refractive Index (25°C)	1.51
Density, g/cm ³ (25°C)	1.22



Brookfield – CAP 2000+ @ 25°C

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TP50	TM50	H50	HE30
BDT-1015	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*	1,787	125	120	1,620	94	584

* Brookfield – CAP 2000+ @ 25°C

CURED MECHANICAL PROPERTIES

Property	I30	I50	TP50	TM50	H50	HE30
Tensile Strength, psi**	4,273	3,754	3,523	3,426	3,365	3,614
Elongation, %**	2.82	2.12	3.06	1.39	2.48	2.49
Elastic Modulus, ksi**	225	226	191	283	181	210
Durometer Hardness	89D	89.2D	83.6D	93.4D	86.6D	89.4D
Water Absorption, % (24 hrs)	0.20	0.18	0.40	0.35	0.25	0.80
MEK Double Rubs (#)	>200	>200	>200	>200	>200	>200

T_g (DMA) = 47°C; Peak tan delta; cured with 2 phr of Irgacure[®] 184

** 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

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