

Bomar[®] BR-641E Difunctional Aliphatic Polybutadiene Urethane Acrylate

APPLICATIONS

- Electronics coatings
- Flexible inks
- Pressure sensitive adhesives

FEATURES

- Excellent flexibility
- High temperature resistance
- Excellent chemical resistance

FEATURES

- Very low moisture absorption
- Thermal cycling capability

BR-641E is a polybutadiene urethane acrylate oligomer designed for rigorous electronic coating, flexible ink, and pressure-sensitive adhesive applications. This oligomer is also perfect for extremely low water absorption applications. BR-641E is resistant to thermal cycling and can withstand the temperature extremes typical of such tests without undue degradation of properties.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60°C)	25,000
Pt-Co (APHA) Color	18
Refractive Index (25°C)	1.477
Density, g/cm ³ (25°C)	0.880

CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50	HE30
Tensile Strength, psi**	50	350				
Elongation, %**	85	400				
Elastic Modulus, ksj**	0.07	0.23				
Durometer Hardness	42A	60A	Not Compatible			
Water Absorption, % (24 hrs)	0.02	0.03				
MEK Double Rubs (#)	32	12				
T _g (DMA) = -28°C; Peak tan delta; cured with 2 phr of Irgacure [®] 184						

** Per ASTM D882

ADHESION PROPERTIES

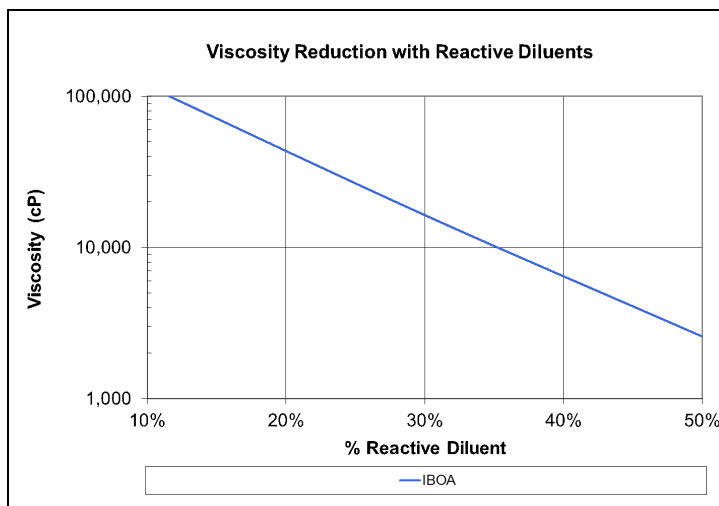
Substrate	I30	I50	TM50	TP50	H50	HE30
ABS		✓✓	Not Compatible			
Aluminum		✓				
Cold Rolled Steel		✓✓✓				
Glass		✓✓				
HDPE						
PET		✓✓				
PMMA		✓✓				
Polycarbonate		✓✓				
Polypropylene		✓				
PVC		✓✓				
Stainless Steel		✓✓✓				

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-641E	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 *	16,000	2,600	Not Compatible			

* Brookfield – CAP 2000+ @ 25°C.



Brookfield – CAP 2000+ @ 25°C

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