

Bomar™ BR-3641AA

1.3 Functional Aliphatic Urethane Acrylate Oligomer

APPLICATIONS

- Pressure Sensitive Adhesives
- Adhesion Promoter
- Reactive Tackifier

FEATURES & BENEFITS

- Low Color
- Exhibits Hydrolytic Stability
- Resilience

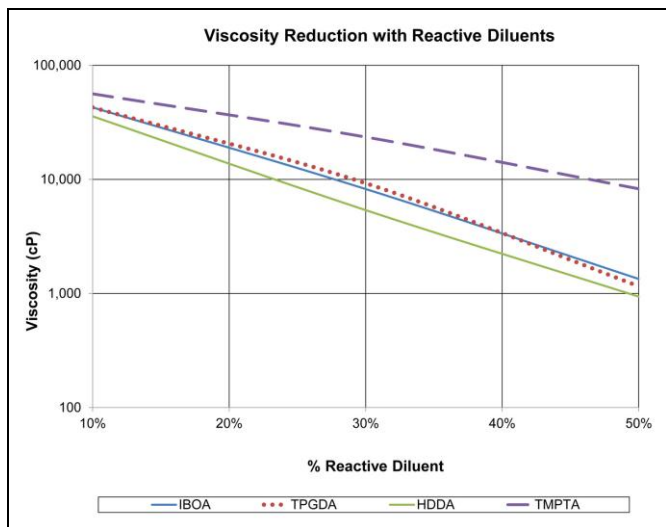
FEATURES & BENEFITS

- Tenacious Adhesion
- Enhances Weatherability
- Non-Yellowing

Bomar™ BR-3641AA is an aliphatic polyether urethane acrylate with a high molecular weight and theoretical 1.3 functionality. Films formulated with BR-3641AA are highly flexible, elastomeric, and tacky. When formulated as an adhesive, this oligomer is excellent as an adhesion promoter or reactive tackifier. This oligomer offers improved adhesion to a variety of substrates.

UNCURED PROPERTIES

Property	Value
Viscosity, cP (50°C)	24,000
Pt-Co (APHA) Color	35
Refractive Index (22°C)	1.4606
Density, g/cm ³ (25°C)	1.06



Brookfield – CAP2000+ @ 25°C

TYPICAL FORMULATIONS

Test Formulation Name	I20	I50	P30	H50	TM50
BR-3641AA	80	50	70	50	
IBOA	20	50			
2-PEA			30		
HDDA				50	
TMPTA					50
Omnirad™ 481	2	2	2	2	2
Viscosity, 25°C*	12,000	1770	11,500	1,420	7,250

* Brookfield – Small Samples Adapter @ 25°C

CURED MECHANICAL PROPERTIES

Property	I20	I50	P30	H50	TM50
Tensile Strength, psi	206	507	86	868	747
Elongation, %	5,284	3,926	1,426	15.2	4.2
Elastic Modulus, ksi	0.04	6.5	0.04	11.1	15.6
Durometer Hardness	<20A	79A	18A	80A	52D
MEK Double Rubs (#)	22	26	35	48	165
T _g (DMA) = -50°C; Peak tan delta; cured with 2 phr of Omnirad™ 481					

PSA PERFORMANCE AGAINST STAINLESS STEEL

Test Formulation	Value	
BR-3641-AA	50	
PEA	40	
Sylvares™ TP 2040	10	
Irgacure® 184	2 Phr	
Test Results	Value	Test Method
180° Peel, lb/in	3.74	PSTC 101**
Loop Tack, lb/in ²		ASTM D6195
Static Shear, hours	1.5	ASTM D6463 [†]

** Converted to English units

† 0.5" x 0.5" contact area; 30 minute dwell; 500 gram load

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FORMULATED ADHESION					
Substrate	I20	I50	P30	H50	TM50
ABS	✓	✓		✓✓	
Acrylic					
Aluminum	✓	✓✓	✓		
Cold Rolled Steel	✓	✓✓✓	✓		
Glass	✓	✓✓✓	✓		
HDPE	✓✓	✓✓✓	✓		
Mylar		✓✓		✓✓	
Nylon		✓		✓	✓
Polycarbonate	✓	✓✓	✓		✓
Polypropylene		✓✓			
Polystyrene		✓		✓✓✓	
PVC		✓✓		✓✓✓	✓
Stainless Steel	✓✓	✓✓	✓		

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended