

Bomar[®] BR-3741AJ

1.3 Functional Aliphatic Polyether Urethane Acrylate

APPLICATIONS

- Pressure sensitive adhesives
- Reactive tackifier
- Adhesion promoter

FEATURES

- Enhances flexibility
- Non-yellowing
- Optically clear
- Oil and chemical resistant

FEATURES

- Provides softness
- Adheres to a wide range of substrates
- Exhibits hydrolytic stability

BR-3741AJ is an aliphatic 1.3 acrylate functional polyether urethane. The extremely elongative nature of BR-3741AJ makes it an excellent candidate for consideration in UV light-curable PSAs as a reactive tackifier. It is also used as a co-oligomer for adhesion promotion in coatings. Films formulated with BR-3741AJ are highly flexible, elastomeric, and tacky. BR-3741AJ is an excellent adhesion promoter, and compared to other reactive tackifiers it results in relatively tougher films. It is a perfect choice for optically clear UV pressure-sensitive adhesives (PSAs).

UNCURED PROPERTIES

Property	Value
Viscosity, cP (60°C)	23,000
Pt-Co (APHA) Color	15
Refractive Index (25°C)	1.460
Density, g/cm ³ (25°C)	1.010

CURED MECHANICAL PROPERTIES

Property	I30	I50	TM50	TP50	H50	HE30*
Tensile Strength, psi**	55	700	1,300	700	950	
Elongation, %**	320	900	4.2	20	13	
Elastic Modulus, ksi**	0.05	6.1	41	12	15	
Durometer Hardness	20A	26D	63D	38D	41D	
Water Absorption, % (24 hrs)	1.18	0.77	1.57	1.38	1.19	
MEK Double Rubs (#)	100	54	>200	32	8	
T _g (DMA) = -49°C; Peak tan delta; cured with 2 phr of Irgacure [®] 184						
*HE30 formula did not cure enough to test						

** Per ASTM D882

ADHESION PROPERTIES

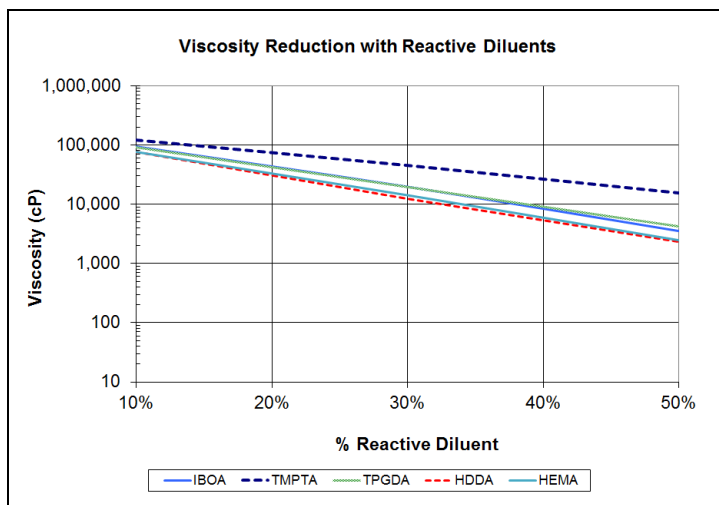
Substrate	I30	I50	TM50	TP50	H50	HE30*
ABS						
Aluminum	✓✓	✓✓✓				
Cold Rolled Steel	✓✓	✓✓✓		✓✓	✓	
Glass	✓✓	✓✓				
HDPE	✓	✓				
PET						
PMMA						
Polycarbonate	✓✓	✓✓✓		✓	✓	
Polypropylene						
PVC						
Stainless Steel	✓✓✓	✓✓✓		✓		

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	I30	I50	TM50	TP50	H50	HE30
BR-3741AJ	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 *	20,000	3,500	15,000	4,200	2,300	14,400

* Brookfield – CAP 2000+ @ 25°C.



Brookfield – CAP 2000+ @ 25°C

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