



Estane® AG 4950 TPU

Lubrizol Advanced Materials, Inc. - Thermoplastic Polyurethane Elastomer (Polyether)

Wednesday, November 6, 2019

General Information

Product Description

Type: Estane® AG 4950 is a Polyether based aliphatic Thermoplastic Polyurethane (TPU) specifically formulated to be used as an adhesive interlayer in transparencies for electronic displays, aerospace, architectural and transportation applications.

Features: Low modulus, low temperature processing adhesive for difficult glass-clad polycarbonate structures.

Uses: For difficult asymmetrical glass clad and plastic laminates.

General

Material Status	• Commercial: Active
Availability	• Latin America • North America
Features	• Aliphatic • Low Temperature Resistant
Uses	• Adhesives • Electronic Displays • Aerospace Applications • Laminates
Forms	• Pellets

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.06		ASTM D792
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (100% Strain)	340	psi	ASTM D412
Tensile Stress ² (200% Strain)	475	psi	ASTM D412
Tensile Stress ² (300% Strain)	650	psi	ASTM D412
Tensile Strength ² (Break)	3500	psi	ASTM D412
Tensile Elongation ² (Break)	770	%	ASTM D412
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-76.0	°F	DSC
CLTE - Flow	1.7E-4	in/in/°F	Internal Method
TMA			Internal Method
Peak	198	°F	
Range	140 to 284	°F	
Optical	Nominal Value	Unit	Test Method
Refractive Index ³	1.486		ASTM D542
Transmittance ³ (50.0 mil)	90.0	%	ASTM D1003
Haze ³ (50.0 mil)	0.300	%	ASTM D1003
Yellowness Index ³ (0.0500 in)	< 1.0	YI	ASTM D1925

Notes

¹ Typical properties: these are not to be construed as specifications.

² 20 in/min

³ Between two pieces of 1/8 inch glass