

Elastollan® 1195A50R

Technical Bulletin

Polyether Type

Elastollan® 1195A50R is a polyether-based thermoplastic polyurethane (TPU). It exhibits excellent abrasion resistance, toughness, transparency, low temperature properties, hydrolytic stability and fungus resistance. Elastollan® 1195A50R is also conforming to the FDA food contact section, book 21, section 177.2600. As with all TPU products, Elastollan® 1195A50R must be dried before processing. The drying step is required maintain a low moisture content until the product enters the processing equipment. The water content must be less than 0.03% before and during processing. The typical drying conditions should be 2-4 hours @ 195°-220°F (90°-105°C). Elastollan® 1195A50R can be stored for up to 1 year in its original container. Containers should be stored in a cool and dry area.

Properties		Test Method	Typical Value	
			English	SI
Physical				
Specific Gravity	gr./cm ³	ASTM D-792	1.14	1.14
Hardness	Shore A	ASTM D-2240	95A	95A
Mechanical				
Tensile Strength (Ultimate)	psi / MPa	ASTM D-412	5200 psi	36 MPa
Tensile Stress	@100% Elong.	ASTM D-412	1750 psi	12 MPa
Tensile Stress	@300% Elong.	ASTM D-412	3000 psi	21 MPa
Elongation at Break	%	ASTM D-412	490%	490%
Tensile Set at Break	%	ASTM D-412	65%	65%
Compression Set, %	22 hrs @ 23°C	ASTM D-395 (B)	30%	30%
Compression Set, %	22 hrs @ 70°C	ASTM D-395 (B)	45%	45%
E-Modulus	psi / MPa	ASTM D-412	7500 psi	51.7 MPa
Flexural Modulus	psi / MPa	ASTM D-790	9500 psi	65.5 MPa
Tear Strength	lb./in. N/mm	ASTM D-624, Die C	800 lb./in.	140 N/mm
Taber Abrasion Resistance / mg loss	1000 gr./H-18	ASTM D-1044	55 mg	55 mg
Thermal				
Vicat Softening Point	°F/°C	ASTM D-1525	260° F	127° C
Processing Conditions, Inj. Molding				
			400 - 430° F	205 - 220° C

The above values are shown as typical values and should not be used as specifications.
Molded plaques 0.080" thick were cured 20 hours at 100 °C before testing

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