

Elastollan® S98A53N

Technical Bulletin

Polyester Type

Elastollan® S98A53N is a polyester-based thermoplastic polyurethane (TPU). It exhibits excellent abrasion resistance and toughness, good heat, oil, fuel, and solvent resistance. As with all TPU products, Elastollan® S98A53N must be dried before processing. The drying step is required to 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® S98A53N 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	1.24	1.24
Hardness	Shore A / D	ASTM D-2240	98A / 54D	98A / 54D
Mechanical				
Tensile Strength (Ultimate)	psi / MPa	ASTM D-412	6100 psi	42.1 MPa
Tensile Stress	@100% Elong.	ASTM D-412	2700 psi	18.6 MPa
Tensile Stress	@300% Elong.	ASTM D-412	4700 psi	32.4 MPa
Elongation at Break	%	ASTM D-412	425%	425%
Compression Set, %	22 hrs@ 23°C	ASTM D-395 (B)	30%	30%
Compression Set, %	22 hrs@ 70°C	ASTM D-395 (B)	45%	45%
Tear Strength	lb./in. N/mm	ASTM D-624, Die C	1050 lb./in.	185 N/mm
Taber Abrasion Resistance / mg loss	1000 gr./H-18	ASTM D-1044	50 mg	50 mg
Thermal				
Vicat Softening Point	°F/°C	ASTM D-1525	315°F	157°C
Glass Transition Temperature	°F/°C	DSC	32°F	0°C
Processing Conditions, Inj. Molding	°F/°C		400 - 435°F	205 - 225°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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