

Elastollan® S95A55N

Technical Bulletin

Polyester Type

Elastollan® S95A55N 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® S95A55N 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® S95A55N 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	1.23	1.23
Hardness	Shore A/D	ASTM D-2240	96A	96A
MFI, gr./10 min.	215°C/10 kg	ASTM D-1238	55	55
Mechanical				
Tensile Strength (Ultimate)	psi/MPa	ASTM D-412	6100 psi	42.1 MPa
Tensile Stress	@100% Elong.	ASTM D-412	2000 psi	13.8 MPa
Tensile Stress	@300% Elong.	ASTM D-412	3800 psi	26.2 MPa
Elongation at Break	%	ASTM D-412	510%	510%
Compression Set, %	22 hrs @ 23°C	ASTM D395 (B)	25%	25%
Compression Set, %	22 hrs @ 70°C	ASTM D395 (B)	45%	45%
Tear Strength	Lb./in. N/mm	ASTM D-624, Die C	875 Lb./in.	154 N/mm
Taber Abrasion Resistance / mg loss	1000 gr./H-18	ASTM D-1044	30 mg	30 mg
Thermal				
Vicat Softening Point	°F/°C	ASTM D-1525	290 °F	145 °C
Glass Transition Temperature	°F/°C	DSC on set	23 °F	-5 °C
Processing Conditions, Extrusion				
	°F/°C		370 - 410 °F	190 - 210 °C
Processing Conditions, Inj. Molding				
	°F/°C		380 - 420 °F	200 - 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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