Elastollan® S60D53N

Technical Bulletin

Polyester Type

Elastollan® S60D53N 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® S60D53N 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 @ 195º-220ºF (90º-105ºC). Elastollan® S60D53N 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	1.25	1.25
Hardness	Shore D	ASTM D-2240	60D	60D
Mechanical				
Tensile Strength (Ultimate)	psi/MPa	ASTM D-412	6200 psi	42.8 MPa
Tensile Stress	@100% Elong	ASTM D-412	3200 psi	22.1 MPa
Tensile Stress	@300% Elong	ASTM D-412	5300 psi	36.6 MPa
Elongation at Break	%	ASTM D-412	450%	450%
Tensile Set at Break	%	ASTM D-412	110%	110%
Compression Set, %	22 hrs@ 23ºC	ASTM D-395 (B)	40%	40%
Compression Set, %	22 hrs@ 70ºC	ASTM D-395 (B)	50%	50%
Tear Strength	lb./in. N/mm	ASTM D-624, Die C	1150 lb./in.	202 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	295°F	145°C
Glass Transition Temperature	°F/°C	DSC	30°F	0°C
Processing Conditions, Inj. Molding	°F/°C		400 - 440°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 ºC before testing

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