Lubrizol

Estane® 58610 TPU

Technical Data Sheet

Type: Estane® 58610 is a polyester-type thermoplastic polyurethane (TPU) compound.

Features: Combines flexibility, toughness and excellent roll release for calendaring and melt coating applications.

Uses: Injection molding and general extrusion techniques. It is used in film, sheet, coated fabric and laminations.

Typical Properties	Test Method	Typical Values*	
		SI Units	English Units
Physical			
Specific Gravity	ASTM D792	1.22	1.22
Shore Hardness	ASTM D2240	87A	87A
Tensile Strength	ASTM D-412/D-638	57.9 MPa	8400 psi
Modulus			
- 100 % Elongation	ASTM D-412/D-638	6.1 MPa	880 psi
- 300 % Elongation	ASTM D-412/D-638	9.0 MPa	1300 psi
Ultimate Elongation	ASTM D-412/D-638	600%	600%
Stiffness @23°C	ASTM D-474	6.4 MPa	930 psi
Taber Abrasion, H-18 wheel, 1000g load	ASTM D-1044	15 mg/1000 cycles	15 mg/1000 cycles
Vicat Softening Point	ASTM D-1525	61°C	142°F

*These are typical values and should not be used for establishing specifications. Contact your representative for availability and commercialization status.

Handling Considerations

Properties of all thermoplastic polyurethane products in the molten state are adversely affected by moisture. Although Estane TPU compound are dry when packaged, trace amounts of moisture can be absorbed during storage and handling. For best results, always dry the material 2 hours at 104°C (220°F) in a dehumidifying hopper dryer.

Test & Condition	Time	Temp. °C	Tensile Strength % Change	Modulus @ 100% Elongation % Change	Modulus @ 300% Elongation % Change	Ultimate Elongation % Change	Shore Hardness
Heat Resistance	6 weeks 10 weeks	70 100	-93 -54	-39 -34	-- -29	+80 +15	74 75
Weathering @ 45° South							
Calendered, 25 mil – Natural							
Arizona	12 months	Ambient	-88	-14	--	-50	89
Florida	12 months	Ambient	-90	-28	--	-63	85
Ohio	12 months	Ambient	-86	-5	-32	-30	89
Shelf	36 months	23	+2	+2	0	+9	75
Calendered, 12 mil – Black							
Arizona	12 months	Ambient	-44	-5	-13	+20	85
Florida	12 months	Ambient	-80	-6	-29	+4	85
Ohio	12 months	Ambient	-28	+3	-5	+19	85
Shelf	12 months	23	+2	+10	+3	+5	85

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