

Technical Data Sheet

Type: Estane® 58212 is an 95A Polyether-type thermoplastic polyurethane (TPU) compound.

Features: Excellent clarity, good melt strength and UV stabilized.

Uses: Extrusion: Cable jacket, hose/tube, profile and film and sheet.

Typical Properties	Test Method	Typical Values*	
		SI Units	English Units
Physical			
Specific Gravity	ASTM D792	1.16	1.16
Shore Hardness	ASTM D2240	95A / 46D \pm 3	95A / 46D \pm 3
Tensile Strength	ASTM D-412/D-638	55 MPa	8000 psi
Modulus			
- 100 % Elongation	ASTM D-412/D-638	13.5 MPa	1950 psi
- 300 % Elongation	ASTM D-412/D-638	31.6 MPa	4575 psi
Ultimate Elongation	ASTM D-412/D-638	400%	400%
Tensile Set @ 200% Elongation	ASTM D-412	20%	20%
Compression Set			
- 22 hours @ 23°C	ASTM D-395	36%	36%
- 22 hours @ 70°C	ASTM D-395	61%	61%
Tear Strength	ASTM D-624, Die C	118.2 kN/m	675 lb/in
Split Tear Resistance	ASTM D-470	28.9 kN/m	165 lb/in
Flexural Modulus @ 23°C	ASTM D-790	76 MPa	10,990 psi
Taber Abrasion, CS-17 wheel, 1000g load	ASTM D-3389 B	5.0 mg/1000 cycles	5.0 mg/1000 cycles
Modulus of Rigidity			
@23°C	ASTM D-1053	8.4 MPa	1225 psi
@0°C	ASTM D-1053	13.8 MPa	2000 psi
@-20°C	ASTM D-1053	41.3 MPa	6000 psi
@-40°C	ASTM D-1053	213.80 MPa	31,000 psi
@-50°C	ASTM D-1053	365.6 MPa	53,000 psi
Glass Transition Temperature	DSC**	-25°C	-13°F
Vicat Softening Point	ASTM D-1525	115°C	239°F

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

**Differential scanning calorimeter, 10°C/min. temperature program.

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	Unit = °F
	Estane® 58212 TPU
Barrel Zone 1	360-370°F (182-188°C)
Barrel Zone 2	370-390°F (188-199°C)
Barrel Zone 3	380-400°F (193-204°C)
Barrel Zone 4	390-410°F (199-210°C)
Adapter	400-420°F (204-216°C)
Die Zone 1	390-410°F (199-210°C)
Die Zone 2	380-400°F (193-204°C)

Screens: 20-40-80-20 (mesh sizes)

Feed Throat Cooling: Yes

Screw Cooling: No

Screw RPM: 15-70

Pre-Drying: 2 hrs @ 220°F by Hopper Dryer (Target moisture level = below 0.03%)

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