

Technical Data Sheet

TYPE: Estane[®] ZHF 78AT3 is a Soft, Polyether based, NHFR Thermoplastic Polyurethane (TPU) Compound

Description: Non-Halogenated flame retardant compound

Uses: Wire and cable and general extrusion where flame retardant properties are required

Physical Properties	Value (Metric)	Unit	Test Method
Hardness(3 second)	78	Shore A	ISO 868
Specific Gravity	1.12	g/mm ³	ISO 2781
Tensile strength	24.1	Mpa	ISO 527
Elongation at break	670	%	ISO 527
Modulus at			
100% Elongation	4.5	Mpa	ISO 527
300 % Elongation	7.5	Mpa	ISO 527
Tear strength(Die C)			
Nicked	62.1	KN/m	ISO 34-1B
Without Nick	85.2	KN/m	ISO 34-1B

- Prior to testing samples were conditioned at 23°C for 48 hours.
- Physical Property test is based on 2mm molded plaques.

Listed data above is a "typical data", and should/cannot be applied for specification purpose

Application Specific Properties	Value (Metric)	Unit	Test Method
UL Flame Rating	V-2	-	UL-94

Materials Preparation:

Prior to process, Estane ZHF 78AT3 must be dried under 105°C for 3 hours. It is recommended drying this materials in a dehumidifier, target dew point to be -30°C, preferable – 40°C

Depending on the process technique, the maximum moisture content is recommended < 0.02%.

Process Condition:

Estane ZHF 78AT3 is extruded on any conventional extruder equipped with a PVC, 3 stage or barrier type screw having an L/D ration of 25:1 and a compression ratio of 3:1

See reverse side for processing information.

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Recommended Starting Extrusion Temperature Profile:

	°C
Zone 1	160
Zone 2	175
Zone 3	180
Zone 4	190
Adaptor	185
Die Zone 1	180
Die Zone 2	175

For further information refer to Lubrizol Advanced Materials processing guides.

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