

**Technical Data Sheet**

**Type:** ESTANE® ZHF 88AT8 NAT 01 is a non-halogen, flame retardant, aromatic polyether-based thermoplastic polyurethane.

**Application:** Extrusion

Physical Properties	Value (Metric)	Unit	Test Method
Hardness	A/1: 90	Shore A	ISO 868
Specific Gravity	1.22	g/cm <sup>3</sup>	ISO 1183
Tensile Strength	22	MPa	VDE282 part 10
Ultimate Elongation	540	%	VDE282 part 10
Tensile Stress at:			
- 50 % Elongation	7	MPa	VDE282 part 10
- 100 % Elongation	8	MPa	VDE282 part 10
- 300 % Elongation	10	MPa	VDE282 part 10
Abrasion Loss	88	mm <sup>3</sup>	ISO 4649-A
Tear Strength nicked	56	kN/m	ISO 34-1B
Vicat Softening Point	78	°C	ISO 306 (A50)

- Based on extruded strips
- Prior to testing samples were conditioned at 23°C for 24 hours
- Listed values are "typical (average) values" and should/can not be applied for specification purposes.

Application Specific Properties	Value (Metric)	Unit	Test Method
UL Flame Rating	V2	-	UL-94
LOI	24	%	ASTM D-2863
Smoke Density (0.75 mm)	-	Flaming DM Non flaming DM	ASTM E662

**Supply Form and Standard Packaging**

- ESTANE® ZHF 88AT8 NAT 01 is supplied in pellet form and packaged in 25 kg (x lb) bags or 700-800 kg boxes (x-y lbs).

**Material Preparation**

- Prior to processing, ESTANE® ZHF 88AT8 NAT 01 must be dried at 90°C for 2-3 hours.
- It is recommended to dry the material in a vacuum or dehumidifying type dryer. Target dew point should be -40°C.
- Depending on the applied processing technique, the maximum moisture level should be 0.02%.

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**Recommended Starting EXTRUSION Temperature Profile:**

	°C
<b>Zone 1</b>	<b>190</b>
<b>Zone 2</b>	<b>185</b>
<b>Zone 3</b>	<b>185</b>
<b>Zone 4</b>	<b>185</b>
<b>Adapter (5)</b>	<b>180</b>
<b>Die Zone 1 (6)</b>	<b>180</b>
<b>Die Zone 2</b>	<b>180</b>

**For further information refer to Lubrizol Advanced Materials processing guides.**

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