

Technical Data Sheet

Type: ESTANE® ZHF 90AT8H NAT 02 EXP is a non-halogen, flame retardant, aromatic polyether-based thermoplastic polyurethane.

Application: Extrusion

| Physical Properties | Value (Metric) | Unit | Test Method |
|----------------------|----------------|-------------------|----------------|
| Hardness | A/1: 87 | Shore A | ISO 868 |
| Specific Gravity | 1.21 | g/cm ³ | ISO 1183 |
| Tensile Strength | 27 | MPa | VDE282 part 10 |
| Ultimate Elongation | 524 | % | VDE282 part 10 |
| Tensile Stress at: | | | |
| - 100 % Elongation | 7 | MPa | VDE282 part 10 |
| - 300 % Elongation | 10 | MPa | VDE282 part 10 |
| Abrasion Loss | 36 | mm ³ | ISO 4649-A |
| Tear Strength nicked | 53 | kN/m | ISO 34-1B |

- 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 | V0-0.8 mm | - | UL-94 |
| LOI | 25 | % | ASTM D-2863 |
| Smoke Density (0.75 mm) | | Flaming DM Non flaming DM | ASTM E662 |

Material Preparation

- Prior to processing, ESTANE® ZHF 90AT8H NAT 02 EXP must be dried at 100°C for 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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Material Preparation

- ESTANE® ZHF 90AT8H NAT 02 EXP can be processed on any conventional extruder:

Recommended EXTRUSION Temperature Profile:

| | °C |
|-----------------------|------------|
| Zone 1 | 210 |
| Zone 2 | 210 |
| Zone 3 | 205 |
| Zone 4 | 205 |
| Adapter (5) | 205 |
| Die Zone 1 (6) | 200 |
| Die Zone 2 | 200 |

For further information refer to Lubrizol Advanced Materials processing guides.

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