

Technical Data Sheet

Type: ESTANE® RNW60 ZHF 90AT2 NAT 055 is a non-halogen, flame retardant, aromatic polyether-based thermoplastic polyurethane.

Main Application: Extrusion

Uses:

Physical Properties*	Value (Metric)**	Unit	Test Method
Hardness	A/1: 91	Shore A/D	ISO 868
Specific Gravity	1.21	g/cm ³	ISO 2781
Tensile Strength	22	MPa	VDE282 part 10
Ultimate Elongation	500	%	VDE282 part 10
Tensile Stress at:			
100 % Elongation	9	MPa	VDE282 part 10
300 % Elongation	12	MPa	VDE282 part 10
Tear Strength nicked	72	kN/m	ISO 34-1B
Abrasion Resistance	45	mm ³	ISO 4649-A
Vicat Softening Point	84	°C	ISO 306 (A50)
Application specific properties	Value (Metric)	Unit	Test Method
UL Flame Rating	V2 – 2.0 mm	-	UL 94
LOI	23	%	ASTM D2863
UL Temperature Rating	90	°C	UL 1581
Smoke Density (0.75 mm)	D _s @ 4 minutes: 53 D _s @ 4 minutes: 101	Flaming Non flaming	ASTM E662

**Based on extruded strips*

***Listed values are “typical (average) values” and should /cannot be applied for specification purposes*

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Material Preparation

Prior to processing, **ESTANE® RNW60 ZHF 90AT2 NAT055** must be dried at **100°C** for 4 hours. It is recommended to dry the material in a dehumidifying type dryer. Target dew point should be **-40°C**.

Recommended Starting Extrusion Temperature Profile*:

	°C
Hopper cooling	Yes
Zone 1	170
Zone 2	175
Zone 3	180
Zone 4	185
Adapter (5)	190
Die (6)	185
Die TIP (7)	185

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

Sustainability Passport

Sustainability property	Value (Metric)	Unit
Sustainable source	Bio-circular	
Sustainable share	60	%
PCF reduction (Indicative value)	34	%
ISCC Plus certified	Yes	

Sustainability Glossary:

Sustainable source: defines the type of sustainable raw material used to achieve the PCF reduction.

This can be: Bio, Bio-circular, Circular

Sustainable share: This represents the amount of sustainably sourced raw materials (renewable carbon) used in the formulation of the product.

PCF reduction: This information provides a relative comparison of Product Carbon Footprint (PCF) between the fossil-based product and the sustainable counterpart. This is an estimated value.

ESTANE® RNW TPU: Attributed renewable carbon is included in the product. The (bio)**mass balance** concept is used to attribute the share of renewable carbon in the formulation. The PCF reduction is carried through the supply chain by means of ISCC plus external certification. The renewable carbon can come from

- **Bio-feedstock** (primary bio feedstock in the beginning of the value chain)
- **Bio-circular feedstock** (bio-waste used as feedstock at the beginning of the value chain)
- **Circular feedstock** (circular feedstock used at the beginning of the value chain)

Contact your account manager for more details.

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