

Technical Data Sheet

Type: ESTANE^(R) ZHF 58211 NAT 01 is a non halogen, flame retardant, aromatic polyether-based thermoplastic polyurethane (TPU).

Application: Extrusion

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (1 sec)	94	ShA	ISO 868
Specific Gravity	1.26	g/cm3	ISO 1183
Tensile Strength	25	MPa	VDE282 part 10
Elongation @ break	380	%	VDE282 part 10
Modulus @ 50%	13	MPa	VDE282 part 10
Modulus @ 100%	14	MPa	VDE282 part 10
Modulus @ 300%	19	MPa	VDE282 part 10
Tear Strenght unnicked	116	Kn/m	ISO 34-1-B
Abrasion Loss	90	mm3	ISO 4649-A
Vicat Softening Point	105	°C	ISO 306 A/50

- These are typical values & should not be used for establishing specifications.
- Based on extruded strips.

Application Specific Properties	Value (Metric)	Unit	Test Method
UL Flame Rating	V2	-	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^(R) ZHF 58211 NAT 01** 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**.
- Depending on the applied processing technique, the maximum moisture level should be 0.02%.

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Material Preparation

- **ESTANE^(R) ZHF 58211 NAT 01** 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

Storage

ESTANE^(R) ZHF 58211 NAT 01 must be stored in a cool (15-25°C) and dry place. Standard Practice of consuming resin first-in first-out basis should be employed. Contact your account manager for specific information related to shelf life.

For further information refer to Lubrizol Advanced Materials processing guides.

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