

Technical Data Sheet

Type: ESTANE® ZHF 95AP7 is a 95A aromatic Thermoplastic Polyurethane (TPU)

Features: Zero halogen, flame retardant compound with low smoke and high Limiting Oxygen Index

Uses: Extrusion – wire and cable jacketing and general extrusion where demanding flame-retardant properties are required.

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (5 sec)	93 +/- 3	Shore A	ASTM D-2240
Specific Gravity	1.40		ASTM D-792
Tensile Strength	3000 (20.7)	psi (MPa)	ASTM D-412
Ultimate Elongation	320	%	ASTM D-412
Tensile Stress at			
- 100 % Elongation	2200 (15.2)	psi (MPa)	ASTM D-412
- 300 % Elongation	2800 (19.31)	psi (MPa)	ASTM D-412
Tear Strength			
Graves	500 (9.0)	lb/in (kg/mm)	ASTM D-624 (die C)
Trouser	125 (2.27)	lb/in (kg/mm)	ASTM D-470
Taber Loss (1000 rev)	0.00356 (101)	oz (mg)	ASTM D-3389 (H-18, 1000g)
Tm (by DMA)	413 (212)	°F (°C)	Lubrizol Advanced Materials
Tg (by DMA)	3 (-16)	°F (°C)	Lubrizol Advanced Materials

- Prior to testing samples were conditioned at 23°C for 48 hours.
- Based on extruded sheet (30 mils).
- Listed values are "typical (average) values" and should / cannot be applied for specification purposes.

Supply Form and Standard Packaging

- ESTANE® ZHF 95AP7 is supplied in pellet form and packaged in 50 lb bags or 1000 lb boxes.

Material Preparation

- Prior to processing, ESTANE® ZHF 95AP7 must be dried at 220°F (104°C) for 2-4 hours.
- It is recommended to dry the material in a desiccant type dryer. Target dew point should be -40°C.
- Depending on the applied processing technique, the maximum moisture level should be 0.02%.

Processing Conditions

- ESTANE® ZHF 95AP7 can be processed on any conventional extruder.

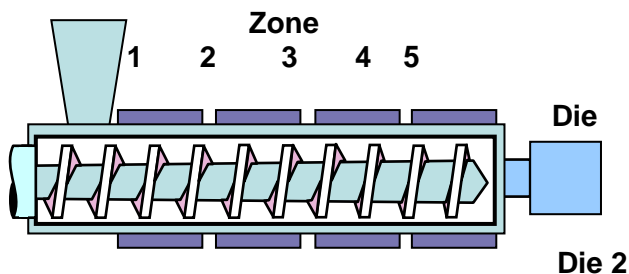
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Recommended Starting EXTRUSION Temperature Profile:



	°F/°C
Zone 1	340/171
Zone 2	360/182
Zone 3	380-420 /190-215
Zone 4	380-420 /190-215
Adapter	380-420 /190-215
Die Zone 1	380-420 /190-215
Die Zone 2	380-420 /190-215

Melt Temp: 380-420 °F /190-215°C
Screen Pack Recommendation: 20/40/20

Application Information: zero halogen flame retardant TPU for high fire performance cable jacket

Application Properties	Value	Unit	Test Method
Limiting Oxygen Index	30	N/A	ASTM D2863
UL flame rating. 75 mils (1.9 mm)	V-0	N/A	UL-94
Air Oven, 7 days, 136°C			
Strength Retention		%	
Elongation Retention		%	

For further information refer to Lubrizol Advanced Materials processing guides.

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