

Technical Data Sheet

Type: ESTANE® ALR CLC93A-V is a 85-90 Shore A thermoplastic polyurethane (TPU) resin.

Features: Offers excellent color stability upon weather exposure. This high-performance resin is clear, SVHCfree, UV resistant, and has excellent mechanical properties. This product provides high quality film and excellent transparency.

Uses: Flat die/ cast film extrusion, outdoor applications, protective films and graphic films.

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (5 sec)	85-90	Shore A	ISO 868 / ASTM D-2240
Specific Gravity	1.10	g/cm3	ISO 2781 / ASTM D-792
Tensile Strength	56 / 8122	MPa / psi	ISO 527-3/5/250 / ASTM D-412
Ultimate Elongation	455	%	ISO 527-3/5/250 / ASTM D-412
Tensile Stress at:			ISO 527-3/5/250 / ASTM D-412
- 100 % Elongation	4 / 580	MPa / psi	ISO 527-3/5/250 / ASTM D-412
- 300 % Elongation	17 / 2320	MPa / psi	ISO 527-3/5/250 / ASTM D-412
Melt Flow Index (175°C, 2.16kg)	1-10	g/ 10 min	ISO 1133 / ASTM D790

Listed values are typical (Average) values and should/cannot be applied for specification purposes. • Prior to testing samples were conditioned at 23°C for 24 hours

Supply Form and Standard Packaging

- ESTANE® ALR CLC93A-V is supplied in pellet form and packaged in 25 kg bags.

Material Preparation

- Prior to processing, ESTANE® ALR CLC93A-V must be dried at 60°C (140°F) for 4 hours.
- It is recommended to dry the material in a vacuum or dehumidifying type dryer. Target dew point should be -40°C.

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Recommended Starting EXTRUSION Temperature Profile:

	°C/°F
Zone 1	165-175°C / 329-347°F
Zone 2	175-185°C / 347-365°F
Zone 3	175-185°C / 347-365°F
Zone 4	185-195°C / 365-383°F
Adapter (5)	185-195°C / 365-383°F
Die Zone 1 (6)	190-200°C / 374-392°F
Die Zone 2	190-200°C / 374-392°F

Melt Temp: 356°F / 180°C

Screen Pack Recommendation: 20/40/80/200/200/20

For further information refer to Lubrizol Advanced Materials processing guides.

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