

## Technical Data Sheet

**Type:** ESTANE® ALR CLC60D-V is a 60 Shore D thermoplastic polyurethane (TPU) resin.

**Features:** Offers excellent color stability upon weather exposure. This high-performance resin is clear, 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)	60	Shore D	ASTM D2240
Specific Gravity	1.15		ASTM D792
Tensile Strength	9400	psi	ASTM D412
Ultimate Elongation	370	%	ASTM D412
Tensile Stress at:			
- 100 % Elongation	2200	psi	ASTM D412
- 300 % Elongation	3800	psi	ASTM D412
Flex Modulus	9200	psi	ASTM D790
Melt Index @ 175°C, 2160 g Load	3.2	g/10 min	ASTM D1230

- Prior to testing, samples were conditioned at 23°C for 48 hours.
- Based on 2 mm thick part.
- Listed values are typical (average) values and should/cannot be applied for specification purposes.

## Supply Form and Standard Packaging

- ESTANE® ALR CLC60D-V is supplied in pellet form and packaged in 50 lb bags, 250 lb fiber drums and 1000 lb Gaylord boxes.

## Material Preparation

- Prior to processing, ESTANE® ALR CLC60D-V must be dried at 125°F (52°C) for 4 hours.
- It is recommended to dry the material in a desiccant type dryer. Target dew point should be -40°C.

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**Recommended Starting EXTRUSION Temperature Profile:**

	°F/°C
<b>Zone 1</b>	<b>338 / 170</b>
<b>Zone 2</b>	<b>347 / 175</b>
<b>Zone 3</b>	<b>356 / 180</b>
<b>Zone 4</b>	<b>365 / 185</b>
<b>Adapter (5)</b>	<b>365 / 185</b>
<b>Die Zone 1 (6)</b>	<b>365 / 185</b>
<b>Die Zone 2</b>	<b>365 / 185</b>

Melt Temp: 365°F / 185°C  
Screen Pack Recommendation: 20/40/80/200/200/20

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

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