

**Technical Data Sheet**

**Type:** ESTANE® RNW85 GP 52DT NAT055 is an aromatic polyether-based thermoplastic polyurethane having attributed renewable carbon in the product.

**Main application:** Injection Moulding

**Uses:**

Physical Properties*	Value (Metric)**	Unit	Test Method
Hardness	D/1: 52	Shore A/D	ISO 868
Specific Gravity	1.15	g/cm <sup>3</sup>	ISO 2781
Tensile Strength	43	MPa	ISO 527-2/5A/500
Ultimate Elongation	545	%	ISO 527-2/5A/500
Tensile Stress at:			
50 % Elongation	12	MPa	ISO 527-2/5A/500
100 % Elongation	14	MPa	ISO 527-2/5A/500
300 % Elongation	23	MPa	ISO 527-2/5A/500
Tear Strength nicked	105	kN/m	ISO 34-1B
Abrasion Resistance	29	mm <sup>3</sup>	ISO 4649-A
Vicat Softening Point	94	°C	ISO 306 (A50)

*\*Based on moulded plaques*

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

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## Material Preparation

Prior to processing, **ESTANE® RNW85 GP 52DT NAT055** must be dried at **100°C** for 3-4 hours. It is recommended to dry the material in a dehumidifying type dryer. Target dew point should be **-40°C**.

## Recommended Starting INJECTION MOULDING Temperature Profile\*:

	°C
<b>Feed Zone</b>	<b>40</b>
<b>Zone 1</b>	<b>205</b>
<b>Zone 2</b>	<b>210</b>
<b>Zone 3</b>	<b>215</b>
<b>Zone 4</b>	<b>220</b>
<b>Nozzle</b>	<b>215</b>

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

## Sustainability Passport

Sustainability property	Value (Metric)	Unit
Sustainable source	Bio-circular	
Sustainable share	86	%
PCF reduction (Indicative value)	55	%
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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