

## Technical Data Sheet

**Type:** ESTANE<sup>®</sup> GP 85AE NAT 01 is an aromatic polyester-based thermoplastic polyurethane.

**Main application:** Injection Moulding

Physical Properties*	Value (Metric)**	Unit	Test Method
Hardness	A/1: 85	Shore A	ISO 868
Specific Gravity	1.23	g/cm <sup>3</sup>	ISO 2781
Tensile Strength	35	MPa	ISO 527-2/5A/500
Ultimate Elongation	690	%	ISO 527-2/5A/500
Tensile Stress at:			
- 50 % Elongation	5	MPa	ISO 527-2/5A/500
- 100 % Elongation	6	MPa	ISO 527-2/5A/500
- 300 % Elongation	8	MPa	ISO 527-2/5A/500
Tear Strength nicked	67	kN/m	ISO 34-1B
Abrasion Resistance	17	mm <sup>3</sup>	ISO 4649-A
Vicat Softening Point	74	°C	ISO 306 (A50)

\* Based on 1 mm thick extruded strips

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

The Lubrizol Corporation (“Lubrizol”) hopes that you have found the information provided helpful, but you are cautioned that this material, including any prototype formulas, is for informational purposes only and you are solely responsible for making your own assessment of appropriate use of the information. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAWS, LUBRIZOL MAKES NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES (WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE), INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR REGARDING THE COMPLETENESS, ACCURACY, OR TIMELINESS OF ANY INFORMATION. Lubrizol does not guarantee how the materials referenced herein will perform in combination with other substances, in any methods, conditions, or processes, with any equipment, or in non-laboratory environments. BEFORE COMMERCIALIZATION OF ANY PRODUCT CONTAINING THESE MATERIALS, YOU SHOULD THOROUGHLY TEST SUCH PRODUCT, INCLUDING HOW THE PRODUCT IS PACKAGED, TO DETERMINE ITS PERFORMANCE, EFFICACY, AND SAFETY. You are solely responsible for the performance, efficacy, and safety of any products you manufacture. Lubrizol shall not be liable, and you shall assume all risk and responsibility for, any use or handling of any material. Any claims may not be approved in all jurisdictions. Any entity making claims related to these products is responsible for complying with local laws and regulations. Nothing contained herein is to be considered as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner, and it is your sole responsibility to determine if any issues related to patent infringement of any component or combination of components relating to the information provided exists. You acknowledge and agree that you are using the information provided herein at your own risk. If you are dissatisfied with the information provided by Lubrizol, your exclusive remedy shall be to not use the information.

### Material Preparation

Prior to processing, ESTANE® GP 85AE NAT 01 must be dried at 80°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>185</b>
<b>Zone 2</b>	<b>190</b>
<b>Zone 3</b>	<b>195</b>
<b>Zone 4</b>	<b>200</b>
<b>Nozzle</b>	<b>200</b>

For further information refer to Lubrizol Advanced Materials processing guides.

The Lubrizol Corporation ("Lubrizol") hopes that you have found the information provided helpful, but you are cautioned that this material, including any prototype formulas, is for informational purposes only and you are solely responsible for making your own assessment of appropriate use of the information. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAWS, LUBRIZOL MAKES NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES (WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE), INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR REGARDING THE COMPLETENESS, ACCURACY, OR TIMELINESS OF ANY INFORMATION. Lubrizol does not guarantee how the materials referenced herein will perform in combination with other substances, in any methods, conditions, or processes, with any equipment, or in non-laboratory environments. BEFORE COMMERCIALIZATION OF ANY PRODUCT CONTAINING THESE MATERIALS, YOU SHOULD THOROUGHLY TEST SUCH PRODUCT, INCLUDING HOW THE PRODUCT IS PACKAGED, TO DETERMINE ITS PERFORMANCE, EFFICACY, AND SAFETY. You are solely responsible for the performance, efficacy, and safety of any products you manufacture. Lubrizol shall not be liable, and you shall assume all risk and responsibility for, any use or handling of any material. Any claims may not be approved in all jurisdictions. Any entity making claims related to these products is responsible for complying with local laws and regulations. Nothing contained herein is to be considered as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner, and it is your sole responsibility to determine if any issues related to patent infringement of any component or combination of components relating to the information provided exists. You acknowledge and agree that you are using the information provided herein at your own risk. If you are dissatisfied with the information provided by Lubrizol, your exclusive remedy shall be to not use the information.

© 2024 The Lubrizol Corporation.  
All rights reserved. All marks are the property of The Lubrizol Corporation.

[go.lubrizol.com/EP](https://go.lubrizol.com/EP)