

## Technical Data Sheet

**Type:** Pearlthane® 11T60D is a polycaprolactone copolyester-based thermoplastic polyurethane.

**Main Application:** Injection Moulding

**Special Features:** Combining very high hardness with excellent mechanical properties.

Physical Properties*	Value (Metric)	Unit	Test Method
Hardness	D/1 : 58	Shore A/D	ISO 868
Specific Gravity	1.19	g/cm <sup>3</sup>	ISO 2781
Tensile Strength	40	MPa	ISO 527-2/5A/500
Ultimate Elongation	480	%	ISO 527-2/5A/500
Tensile Stress at			
50 % Elongation	15	MPa	ISO 527-2/5A/500
100 % Elongation	15	MPa	ISO 527-2/5A/500
300 % Elongation	28	MPa	ISO 527-2/5A/500
Tear Strength Unnicked	170	kN/m	ISO 34-1B
Abrasion Resistance	25	mm <sup>3</sup>	ISO 4649-A
Vicat Softening Point	137	°C	ISO 306 (A50)

\*Based on moulded plaques.

Listed values are "typical (average) values" and should/can not be applied for specification purposes.

**See reverse side for processing information.**

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained. The information often is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance or reproducibility. Formulations presented may not have been tested for stability and should be used only as a suggested starting point. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product performance are the responsibility of the user. Lubrizol Advanced Materials, Inc. shall not be liable for and the customer assumes all risk and liability for any use or handling of any material beyond Lubrizol Advanced Materials, Inc.'s direct control. The SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation nor as an inducement to practice any patented invention without permission of the patent owner.

© 2018 The Lubrizol Corporation.  
All rights reserved. All marks are the property of The Lubrizol Corporation.



<http://go.lubrizol.com/EP>

### Material Preparation

Prior to processing, Pearlthane® 11T60D must be dried at 100°C during 3 hours. It is recommended to dry the material in a dehumidifying-type dryer. Target dew point to be below -30°C, preferably -40°C.

### Recommended Injection Moulding Temperature Profile:

	°C
<b>Feed Zone</b>	<b>40</b>
<b>Zone 1</b>	<b>210</b>
<b>Zone 2</b>	<b>215</b>
<b>Zone 3</b>	<b>225</b>
<b>Zone 4</b>	<b>225</b>
<b>Nozzle</b>	<b>220</b>

For further information refer to Lubrizol Advanced Materials processing guides.

*European version – Issue Date: 09/2015*

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained. The information often is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance or reproducibility. Formulations presented may not have been tested for stability and should be used only as a suggested starting point. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product performance are the responsibility of the user. Lubrizol Advanced Materials, Inc. shall not be liable for and the customer assumes all risk and liability for any use or handling of any material beyond Lubrizol Advanced Materials, Inc.'s direct control. The SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation nor as an inducement to practice any patented invention without permission of the patent owner.

© 2018 The Lubrizol Corporation.  
All rights reserved. All marks are the property of The Lubrizol Corporation.



<http://go.lubrizol.com/EP>