

Technical Data Sheet

Type: Estane® 58245 is a 80A aromatic Polyether-Type Thermoplastic Polyurethane (TPU).

Features: High moisture vapor transmission. Good low temperature properties and elasticity.

Uses: Blown and flat die/cast film extrusion.

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (5 sec)	80 +/- 3	Shore A	ASTM D-2240
Specific Gravity	1.21		ASTM D-792
Tensile Strength	4500 (31.0)	psi (MPa)	ASTM D-412
Ultimate Elongation	700	%	"
Tensile Stress at:			
- 100% Elongation	650 (4.5)	psi (MPa)	ASTM D-412
- 300% Elongation	1200 (8.3)	psi (MPa)	"
Tear Strength:			
- Graves	350 (6.3)	lb/in (kg/mm)	ASTM D-624 (die C)
- Trouser	100 (1.8)	lb/in (kg/mm)	ASTM D-470
Taber Loss (1000 rev)	0.0021 (60)	oz (mg)	ASTM D-3389 (H18, 1000g)
T _m (by DSC)	275 (135)	°F (°C)	Lubrizol Advanced Materials
T _g (by DSC)	-35 (-37)	°F (°C)	Lubrizol Advanced Materials

- Prior to testing samples were conditioned at 23°C for 48 hours.
- Based on extruded sheet (30 mils).
- Listed values are "typical (average) values" and should/cannot be applied for specification purposes.

Supply Form and Standard Packaging

- Estane® 58245 TPU is supplied in pellet form and packaged in 50 lb bags or 1000 lb boxes.

Material Preparation

- Prior to processing, Estane® 58245 TPU must be dried at 180°F (82°C) for 2-4 hours.
- It is recommended to dry the material in a desiccant type dryer. Target dew point should be -40°C.
- Depending on the applied processing technique, the maximum moisture level should be 0.02%.

Processing Conditions

- Estane® 58245 TPU can be processed on any conventional extruder.

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.



Recommended Starting Extrusion Temperature Profile:

	°F/°C
Zone 1	340/171
Zone 2	350/177
Zone 3	360/182
Zone 4	370/188
Adapter	380/193
Die Zone 1	380/193
Die Zone 2	380/193

Melt Temp. Mid-Range: 375°F/191°C
 Screen Pack Recommendation: 20/40/80/20

Application Information: High Moisture Vapor Transmission Grade

Properties	Value (Metric)	Unit	Test Method
MVT: upright cup (23°C, 50%RH)	650	g/m ² *24h	ASTM E-96B
MVT: Mocon (38°C, 90%RH)	6500	g/m ² *24h	ASTM D-6701
Volume Swell in water (24h@23°C)	60	%	ASTM D-471
Tensile Set (200% elongation)	10	%	ASTM D-412
Kofler Melt Point	275 (135)	°F (°C)	Lubrizol Advanced Materials
FDA 177.1680 (dry bulk foods)	No		
FDA 177.2600 (wet/fatty foods)	No		
NSF 61 Status	Not Tested		

For further information refer to Lubrizol Advanced Materials processing guides.

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>