

# Pellethane® 8663-85A-B20

**Type:** Medical Grade Aromatic polyether-based thermoplastic polyurethane (TPU) with 20% loading of Barium Sulfate

**Features:** Good mechanical properties, good chemical resistance, radiopaque

**Process:** Extrusion or Injection Molding

Products & Properties	Value (Metric)	Unit	Test Method
Durometer Shore Hardness (5 sec)*	86	Shore A	ASTM D-2240
Specific Gravity	1.31	g/cm <sup>3</sup>	ASTM D-792
Ultimate Tensile Strength*	26	MPa	ASTM D-412
Ultimate Elongation*	650	%	ASTM D-412
Tensile Modulus*			
at 100% Elongation	5.5	MPa	ASTM D-412
at 200% Elongation	6.5	MPa	ASTM D-412
at 300% Elongation	8.0	MPa	ASTM D-412

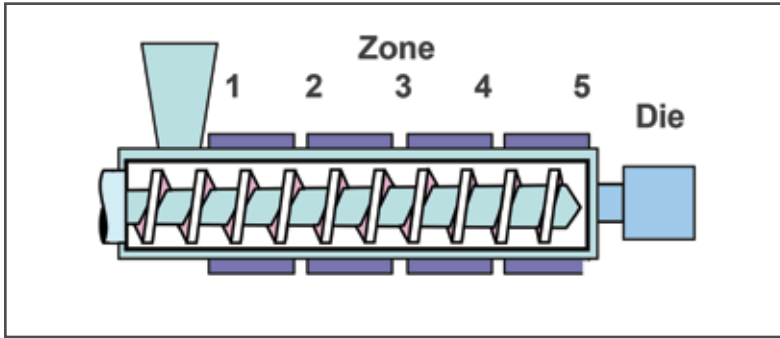
**Note:** 1. \*These test results are based on 3.0mm injection molded specimen, unannealed.

2. Listed values are "typical (average) values" and should/cannot be applied for specification purposes. This information should not be used for establishing engineering or manufacturing guidelines.

**Handling Conditions:** Properties of all thermoplastic polyurethane products in the molten state are adversely affected by moisture. For best results, always dry the material at least two hours at 85-95°C (200°F) in a machine mounted dehumidifying dryer (a desiccant dryer delivering air at 1 liter/sec/ kg at -40°C dew point (1 cfm/lb at -40°F dew point)). A dehumidifying dryer hopper or one shot loader is also recommended. Depending on the applied processing technique, the maximum moisture level should be 0.02%. **Never exceed 500°F (260°C) melt temperature!**

**Processing Conditions:** Pellethane® 8663-85A-B20 can be processed on any conventional extruder or molder.

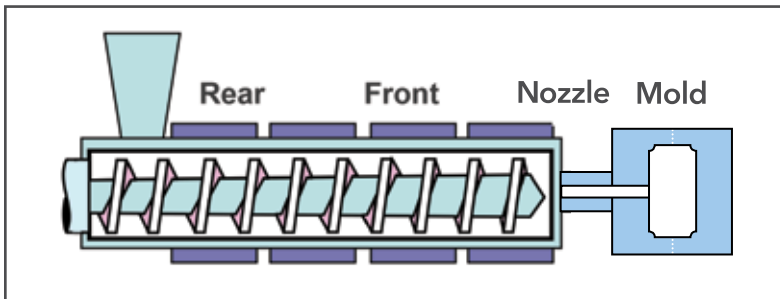
**Recommended Starting Extrusion Temperature Profile:**



	°F/°C
<b>Zone 1</b>	375/191
<b>Zone 2</b>	385/196
<b>Zone 3</b>	395/202
<b>Zone 4</b>	400/204
<b>Adapter 5</b>	410/210
<b>Die</b>	410/210

Screen Pack Recommendation: 100/250/100 mesh

**Recommended Starting Injection Molding Temperature Profile:**



	°F/°C
<b>Rear</b>	365/185
<b>Front</b>	375/191
<b>Nozzle</b>	385/196
<b>Melt</b>	<420/<215
<b>Mold</b>	50-110/10-43

Please refer to Lubrizol’s [processing guide\(s\)](#) for more information regarding proper drying, equipment and process design.

Further guidance is available on the [LLS Health Resource Hub](#) or by contacting our [technical solutions team](#).