

Technical Data Sheet

- Type:** Polyester Thermoplastic Polyurethane (TPU)
- Special Feature:** Excellent Foam-ability, Good Rebound Resiliency, and Low Temperature Properties
- Process:** Foam Injection Molding, Extrusion Foaming

Material Information: Solid Part

Physical Properties	Value (Metric)	Unit	Test Method
Hardness (5 sec)	83	Shore A	ASTM D-2240
Specific Gravity	1.19		ASTM D-792
Tensile Strength	5100 (35)	lb/in ² (MPa)	ASTM D-412
Ultimate Elongation	520	%	ASTM D-412
Melting Temperature	157	°C	Lubrizol DSC
Glass Transition	-42	°C	Lubrizol DSC

- Prior to testing samples were conditioned at 23°C for 48 hours.
- Based on solid injection molded plaques (3.2 mm).
- Listed values are "typical (average) values" and should/cannot be applied for specification purposes.

Application Information: Foam Injection Molded Part

Application Specific Properties	Value (Metric)	Unit	Test Method
Foam Specific Gravity	0.30		ASTM D-792
Foam Hardness	50	Asker C	ASTM D-2240
Foam Vertical Resiliency	45	%	ASTM D-2632
Foam Compression Set at Room Temp	12	%	ASTM D-395
Foam Compression Set at 50°C	18	%	ASTM D-395
Lubrizol Foam Fatigue Compression Test (50,000 cycles)			
Dynamic Foam Compression Set	5	%	
Energy Efficiency, Initial	48	%	
Energy Efficiency Change after 50,000 cycles	11	%	

*Properties of foamed articles may vary depending on blowing agents, processing methods, processing condition and part design. These values should be taken as exemplary properties of foamed parts consisted of BCX61 and supercritical nitrogen fluid.

Supply Form and Standard Packaging

- **BCX61** is supplied in pellet form and packaged in 25 kg bags or 500 kg boxes.

Please see reverse side for processing information.

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Material Preparation

- Prior to processing, **BCX61** must be dried at 220°F (104°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

- **BCX61** can be processed on any conventional injection molding machine and extruder
- SUGGESTED START-UP CONDITIONS – Injection Molding

	°F/°C
Zone 1	360/182
Zone 2	370/188
Zone 3	380/193
Zone 4	390/199
Nozzle	390/199

Mold Temperature = 90~120°F/35~49°C

For further information refer to Lubrizol Advanced Materials processing guides.

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