

Tecoflex® TPU – 40% Barium Sulfate

Type: Medical Grade Aliphatic Polyether- based Thermoplastic Polyurethanes (TPUs) with 40% loading of Barium Sulfate

Features: Variety of hardnesses, offers an inherent ultraviolet (UV) stability that resists yellowing by aging and sterilization, good mechanical properties, radiopaque and can be color-matched

Process: Extrusion or Injection Molding

Products & Properties	ASTM Test	EG-80A-B40	EG-85A-B40	EG-93A-B40	EG-100A-B40	EG-60D-B40	EG-65D-B40	EG-72D-B40
Durometer (Shore Hardness)	D2240	78A	86A	95A	98A	65D	78D	82D
Specific Gravity	D792	1.48	1.50	1.52	1.53	1.53	1.54	1.55
Flexural Modulus (psi)	D790	1,500	3,700	4,700	14,000	27,000	97,000	179,000
Ultimate Tensile (psi)	D412	4,700	4,900	6,500	6,600	6,800	6,200	5,700
Ultimate Elongation (%)	D412	660	590	430	390	370	330	190
Tensile Modulus (psi)	D412							
at 100% Elongation		500	900	1,400	2,100	2,200	3,000	4,300
at 200% Elongation		900	1,400	2,000	2,700	2,900	3,500	NA
at 300% Elongation		1,200	1,800	3,100	4,300	4,700	5,300	NA
Mold Shrinkage (in/in)	D955	.008-.012	.008-.012	.006-.010	.006-.010	.004-.008	.004-.008	.004-.006

Note: These test results are based on small samples of Tecoflex® polyurethanes and do not necessarily represent average results from larger test samples. This information should not be used for establishing engineering or manufacturing guidelines.

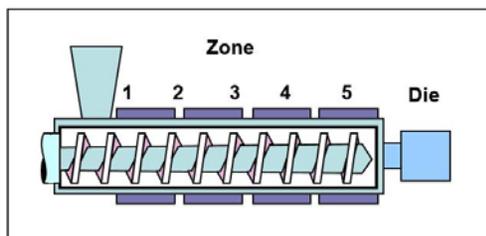
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HANDLING CONSIDERATIONS

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 65.5°C (150°F) or overnight at 54.4°C (130°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 0.05%. Never exceed 500°F (260°C) melt temperature!

Processing Conditions: Tecoflex® TPU's can be processed on any conventional extruder or molder

Recommended Starting Extrusion Temperature Profile:

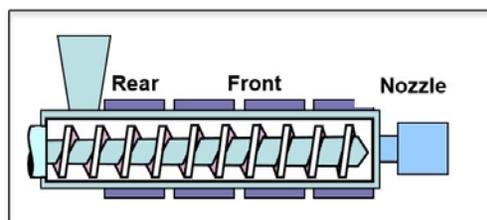


	EG-80A-B40	EG-85A-B40	EG-93A-B40	EG-100A-B40	EG-60D-B40	EG-65D-B40	EG-68D-B40	EG-72D-B40
	°F/°C	°F/°C	°F/°C	°F/°C	°F/°C	°F/°C	°F/°C	°F/°C
Zone 1	340/171.1	340/171.1	340/171.1	350/176.6	350/176.6	350/176.6	350/176.6	360/182.8
Zone 2	350/176.6	350/176.6	350/176.6	360/182.8	360/182.8	360/182.8	360/182.8	370/187.7
Zone 3	360/182.8	360/182.8	360/182.8	370/187.7	370/187.7	370/187.7	370/187.7	380/193.3
Zone 4	370/187.7	370/187.7	370/187.7	370/187.7	370/187.7	370/187.7	370/187.7	390/198.8
Adapter 5	370/187.7	370/187.7	370/187.7	370/187.7	370/187.7	370/187.7	370/187.7	390/198.8
Die	370/187.7	370/187.7	370/187.7	380/193.3	380/193.3	380/193.3	380/193.3	390/198.8

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Screen Pack Recommendation: 100/500/250

Recommended Starting Injection Molding Temperature Profile:



	EG-80A-B40	EG-85A-B40	EG-93A-B40	EG-100A-B40	EG-60D-B40	EG-65D-B40	EG-72D-B40
	°F/°C	°F/°C	°F/°C	°F/°C	°F/°C	°F/°C	°F/°C
Rear	310/154.4	325/162.7	325/162.7	325/162.7	360/182.2	375/190.5	375/190.5
Front	325/162.7	325/162.7	325/162.7	350/176.6	375/190.5	390/198.8	410/210
Nozzle	335/168.3	335/168.3	335/168.3	360/182.2	380/193.3	400/204.4	410/510
Melt	<380/<193.3	<380/<193.3	<385/<196.1	<410/<210	<410/<210	<430/<221.1	<440/<226.6
Mold	40-80/4.4-26.6	40-80/4.4-26.6	50-100/10-37.7	50-110/10-43.3	50-120/10-48.8	50-120/10-48.8	50-130/10-54.4

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For further information refer to Lubrizol Advanced Materials processing guides.

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