Quadraflex[™] ALE-80A-B20

Thermoplastic Polyurethane Elastomer (Polyether)

Biomerics, LLC

Message:

Quadraflex[™] ALE-80A-B20 is high performance aliphatic polyether thermoplastic polyurethane. The polymer is loaded with 20% barium sulfate by weight, is naturally white and supplied in small pellets for ease of processing. The material exhibits excellent mechanical properties, oxidative stability, biocompatibility, elasticity, non-yellowing during aging and softening at body temperature. The resin has consistent melt flow properties making it ideal for extrusion.

Quadrathane[™], Quadraflex[™], Quadraban[™] and Quadraplast[™] performance polymers are primarily used in life science and medical applications including vascular access devices, surgical supplies, respiratory devices, tracheotomy devices, and other medical applications. Typical end products include tubing, catheter parts, balloons, and various medical device components. These performance polymers are available in a variety of durometers, radiopacifiers, colors, and custom formulations.

General Information					
Filler / Reinforcement	Barium sulfate, 20% filler by weig	ght			
Features	High elasticity				
	Antioxidation				
	Workability, good				
	Good liquidity				
	Good color stability				
	Biocompatibility				
	aliphatic				
	Resistance				
Uses	Pipe fittings				
0565	Surgical instruments				
	Medical/nursing supplies				
Appearance	White				
Forms	Particle				
Processing Method	Extrusion				
	Injection molding				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.23	g/cm³	ASTM D792		
Melt Mass-Flow Rate (MFR) (190°C/2.16					
kg)	7.5	g/10 min	ASTM D1238		
Molding Shrinkage - Flow	0.60 - 1.0	%	ASTM D955		
Hardness	Nominal Value	Unit	Test Method		
Durometer Hardness (Shore A)	80		ASTM D2240		
Mechanical	Nominal Value	Unit	Test Method		
Flexural Modulus	7.58	MPa	ASTM D790		
Elastomers	Nominal Value	Unit	Test Method		

Tensile Stress (10% Strain)4.83MPaMFaASTM D412Tensile StressASTM D412100% strain6.89MPaASTM D412Tensile Strength (Break)3.45MPaASTM D412Tensile Elongation (Break)500%ASTM D412Tensile Elongation (Break)6.0 -10MrMrTensile Elongation (Break)6.0 -10MrMrTensile Elongation (Break)6.0 -10MrMrTensile Elongation (Break)6.0 -10MrMrPost Cure Time (38°C)Mominal ValueUnitMrDrying Temperature4.0MrMrSuggested Max Moisture4.0MrMrSuggested Max Moisture4.0MrMrNozzie Temperature196CMrNozzie Temperature196CMrNozzie Temperature190MrMrNozzie TemperatureSowSMrSorw Consensin RatioSito - 3:10MrMrSorw Colling/Hold Time Ton - stratest St% of cycle (20 to Gramerasion antickness)MrExtrainionMominal ValueMrMrSigested Max Moisture4.0MrMrSigested Max Moisture4.0MrMrSigested Max Moisture6.0MrMrSigested Max Moisture4.0MrMrSigested Max Moisture182GMrSigested Max Moisture183GMrSigested Max Moisture183				
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	Die Temperature	193 - 216	°C	
Extrusion instructions	Back Pressure	6.89 - 12.4	MPa	
	Extrusion instructions			

Screen Pack: 250 meshScrew Speed: Low sheer, 150 to 250 rpmWater Bath: 80 to 110°F

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