Medalist® MD-12170 XRD (PRELIMINARY DATA)

Thermoplastic Elastomer

Teknor Apex Company

Message:

Medalist MD-12170 XRD is designed for medical and healthcare applications requiring high elasticity and tensile strength. Medalist MD-12170 XRD is a translucent grade, can be sterilized and is suitable for injection molding and extrusion. This grade also exhibits excellent adhesion to polypropylene. Every ingredient used to formulate this product is either "generally recognized as safe" (GRAS), prior sanctioned, subject to an effective Food Contact Notification (FCN), subject to a Threshold of Regulation (TOR) or identified in one or more sections of Title 21 of the code of Federal Regulations published by the US FDA.

General Information	
Features	Low Specific Gravity Without Fillers Low density smoothness Low liquidity Medium hardness
Uses	Drug Medical/nursing supplies
Agency Ratings	ISO 10993 Part 5
Appearance	Translucent
Forms	Particle
Processing Method	Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.890	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.5	g/10 min	ASTM D1238
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore A, 5 sec)	70		ISO 868
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress - Across Flow (100% Strain)	2.12	MPa	ISO 37
Tensile Stress - Across Flow (Break)	12.9	MPa	ISO 37
Tensile Elongation - Across Flow (Break)	850	%	ISO 37
Tear Strength [1]			ISO 34-1
Transverse flow	27	kN/m	ISO 34-1
Flow	36	kN/m	ISO 34-1

Compression Set [2] (70°C, 22 hr)	33	%	ISO 815

Injection	Nominal Value	Unit
Rear Temperature	160 - 177	°C
Middle Temperature	182 - 204	°C
Front Temperature	193 - 216	°C
Nozzle Temperature	182 - 227	°C
Processing (Melt) Temp	182 - 227	°C
Mold Temperature	26.7 - 48.9	°C
Injection Rate	Moderate-Fast	
Back Pressure	0.172 - 0.689	MPa
Screw Speed	50 - 100	rpm
Cushion	3.81 - 12.7	mm

Injection instructions
Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

NOTE	
1.	Method B, right-angle specimen (without cut)
2.	Type a

Recommended distributors for this material

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