Riteflex® 663

Thermoplastic Copolyester Elastomer

Celanese Corporation

Message:

Riteflex 663 is a nominal 63 Shore D thermoplastic polyester elastomer with medium modulus.

General Information			
UL YellowCard	E45575-239421		
Features	Rigid, good		
RoHS Compliance	Contact manufacturer		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.24	g/cm³	ASTM D792, ISO 1183
Specific Volume	0.820	cm³/g	ASTM D792
Ross Flex	> 1.0E+6	Cycles	Internal method
Tear Strength	269.7	kN/m	ASTM D1004
Melt Mass-Flow Rate (MFR)			
--	16	g/10 min	ASTM D1238
240°C/2.16 kg	19	g/10 min	ISO 1133
Molding Shrinkage			
Flow	1.9	%	ASTM D955
Vertical flow direction	1.7 - 2.1	%	ISO 294-4
Flow direction	1.7 - 2.0	%	ISO 294-4
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			
Shaw D	63		ASTM D2240
Shaw D, 15 seconds	63		ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
23°C	365	MPa	ASTM D638
--	350	MPa	ISO 527-2/1A/1
Tensile Stress			
Yield	22.0	MPa	ISO 527-2/1A/50
Fracture, 23°C	26.2	MPa	ASTM D638
Fracture	38.0	MPa	ISO 527-2/1A/50
5.0% strain	13.0	MPa	ISO 527-2
10% strain	18.0	MPa	ISO 527-2
50% strain	21.0	MPa	ISO 527-2/1A/50
Tensile Strain			
Yield	44	%	ISO 527-2/1A/50
Fracture, 23°C	320	%	ASTM D638

Nominal Tensile Strain at Break	> 50	%	ISO 527-2/1A/50
Flexural Modulus			ISO 178
-40°C	1900	MPa	ISO 178
23°C	325	MPa	ISO 178
Flexural Stress (23°C)	17.5	MPa	ISO 178
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tear Strength			
--	266	kN/m	ASTM D624
Flow [1]	160	kN/m	ISO 34-1
Compression Set (23°C)	< 1.0	%	ASTM D395
Bayshore Resilience			
--	40	%	Internal method
--	40	%	ASTM D2632
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	22	kJ/m^2	ISO 179/1eA
23°C, local fracture	110	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		ISO 179/1eU
23°C	No Break		ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-40°C	7.0	kJ/m^2	ISO 180/1A
23°C	74	kJ/m^2	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (0.45 MPa, Unannealed)	114	°C	ISO 75-2/B
Glass Transition Temperature	-42.8	°C	ASTM D3418
Vicat Softening Temperature	195	°C	ASTM D1525
Melting Temperature			
-- [2]	212	°C	ISO 11357-3
--	210	°C	ASTM D3418
CLTE - Flow	1.8E-4	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity			
--	2.0E+13	ohms·cm	ASTM D257
--	2.0E+15	ohms·cm	IEC 60093
Dielectric Strength			
-- [3]	13	kV/mm	ASTM D149
--	14	kV/mm	IEC 60243-1
Relative Permittivity (1 MHz)	4.00		IEC 60250
Dissipation Factor (1 MHz)	0.040		IEC 60250

Comparative Tracking Index	> 600	V	IEC 60112, ASTM D3638
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.50 mm)	HB		UL 94
Injection	**Nominal Value**	**Unit**	
Drying Temperature	100 - 110	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.050	%	
Suggested Max Regrind	25	%	
Hopper Temperature	20.0 - 50.0	°C	
Rear Temperature	200 - 215	°C	
Middle Temperature	215 - 230	°C	
Front Temperature	215 - 230	°C	
Nozzle Temperature	215 - 235	°C	
Processing (Melt) Temp	215 - 235	°C	
Mold Temperature	20.0 - 55.0	°C	
Injection Rate	Moderate-Fast		
Back Pressure	0.00 - 0.345	MPa	
Injection instructions			
Manifold Temperature: 215 to 235°CZone 4 Temperature: 215 to 235°CFeed Temperature: 200 to 215°C			
NOTE			
1.	Die C		
2.	10°C/min		
3.	Method A (short time)		

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China