

Riteflex® 640A

Thermoplastic Polyester Elastomer

Celanese Corporation

Message:

40 Shore D Hardness 12,300 PSI flexural modulus

General Information			
UL YellowCard	E45575-100732522		
RoHS Compliance	Contact manufacturer		
Processing Method	Blow molding		
	Extrusion		
	Injection molding		

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.15	g/cm ³	ASTM D792
--	1.13	g/cm ³	ISO 1183
Specific Volume	0.882	cm ³ /g	ASTM D792
Shear	1000	1/°C	Internal method
Viscosity	351	Pa · s	Internal method
Durometer	40.0		Internal method
Ross Flex	> 1.0E+6	Cycles	Internal method
Tear Strength	110.3	kN/m	ASTM D1004
Temperature	220	°C	Internal method
Melt Mass-Flow Rate (MFR)			
--	8.0 - 12	g/10 min	ASTM D1238
220°C/2.16 kg	10	g/10 min	ISO 1133
Molding Shrinkage			
Flow	1.0	%	ASTM D955
Flow direction	1.2 - 1.4	%	ISO 294-4

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			
Shaw D	40		ASTM D2240
Shaw D, 15 seconds	40		ISO 868

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	92.4	MPa	ASTM D638
--	75.0	MPa	ISO 527-2/1A/1
Tensile Strength			
Fracture, 23°C	20.7	MPa	ASTM D638

Fracture	17.0	MPa	ISO 527-2/1A/50
5.0% strain	3.00	MPa	ISO 527-2
10% strain	5.00	MPa	ISO 527-2
50% strain	8.00	MPa	ISO 527-2/1A/50
Tensile Elongation			
Fracture, 23°C	480	%	ASTM D638
Fracture	> 300	%	ISO 527-2/1A/50
Flexural Modulus			
-40°C	115	MPa	ISO 178
23°C	70.0	MPa	ISO 178
Flexural Stress			
3.5% strain	3.00	MPa	ISO 178
23°C	5.00	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, CS-18 Wheel)			
	90.0	mg	ASTM D4060
Elastomers	Nominal Value	Unit	Test Method
Tear Strength			
--	126	kN/m	ASTM D624
Flow ¹	84	kN/m	ISO 34-1
Bayshore Resilience	59	%	ASTM D2632
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
-30°C	No Break		ISO 179/1eA
23°C	No Break		ISO 179/1eA
Charpy Unnotched Impact Strength			
-30°C	No Break		ISO 179/1eU
23°C	No Break		ISO 179/1eU
Unnotched Izod Impact Strength			
-30°C	No Break		ISO 180/1U
23°C	No Break		ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	56.0	°C	ISO 75-2/B
Brittleness Temperature	-78.0	°C	ISO 974
Glass Transition Temperature	-65.0	°C	ASTM D3418
Vicat Softening Temperature	136	°C	ASTM D1525
Melting Temperature			
-- ²	170	°C	ISO 11357-3
--	180	°C	ASTM D3418
CLTE - Flow	2.2E-4	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	3.0E+15	ohms	IEC 60093
Volume Resistivity	5.0E+12	ohms · cm	ASTM D257, IEC 60093

Dielectric Strength			
-- ³	12	kV/mm	ASTM D149
--	13	kV/mm	IEC 60243-1
Relative Permittivity (1 MHz)	4.70		IEC 60250
Dissipation Factor (1 MHz)	0.030		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	%	
Hopper Temperature	20.0 - 50.0	°C	
Rear Temperature	160 - 180	°C	
Middle Temperature	170 - 200	°C	
Front Temperature	170 - 200	°C	
Nozzle Temperature	170 - 205	°C	
Processing (Melt) Temp	170 - 205	°C	
Mold Temperature	20.0 - 55.0	°C	
Injection Rate	Moderate-Fast		
Injection instructions			
Manifold Temperature: 170 to 205°C Zone 4 Temperature: 170 to 205°C Feed Temperature: 160 to 180°C			
NOTE			
1.	Die C		
2.	10°C/min		
3.	Method A (short time)		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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



WECHAT