

RITEFLEX® 640A | TPC | Unfilled

Description

40 Shore D Hardness 12,300 PSI flexural modulus

Physical properties	Value	Unit	Test Standard
Density	1130	kg/m ³	ISO 1183
Melt flow rate (MFR)	10	g/10 min	ISO 1133
MFR test temperature	220	°C	ISO 1133
MFR test load	2.16	kg	ISO 1133
Mold shrinkage - parallel	1.2-1.4	%	ISO 294-4

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	75	MPa	ISO 527-2/1A
Tensile stress at 50% strain (50mm/min)	8	MPa	ISO 527-2/1A
Tensile stress at break (50mm/min)	17	MPa	ISO 527-2/1A
Tensile strain at break (50mm/min)	>300	%	ISO 527-2/1A
Flexural modulus (23°C)	70	MPa	ISO 178
Flexural modulus (-40°C)	115	MPa	ISO 178
Flexural strength (23°C)	5	MPa	ISO 178
Flexural stress @ 3.5% strain	3	MPa	ISO 178
Charpy impact strength @ 23°C	NB	kJ/m ²	ISO 179/1eU
Charpy impact strength @ -30°C	NB	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	NB	kJ/m ²	ISO 179/1eA
Charpy notched impact strength @ -30°C	NB	kJ/m ²	ISO 179/1eA
Unnotched impact str (Izod) @ 23°C	N	kJ/m ²	ISO 180/1U
Unnotched impact str (Izod) @ -30°C	N	kJ/m ²	ISO 180/1U
Shore hardness D scale 15 sec value	40	-	ISO 868
Bayshore resilience	59	%	Internal
Brittleness temperature	-78	°C	ISO 974
Ross flex	>1000000	cycles	Internal

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	170	°C	ISO 11357-1,-2,-3
DTUL @ 0.45 MPa	56	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	2.2	E-4/°C	ISO 11359-2
Flammability at thickness h	HB	class	UL94
thickness tested (h)	1.5	mm	UL94

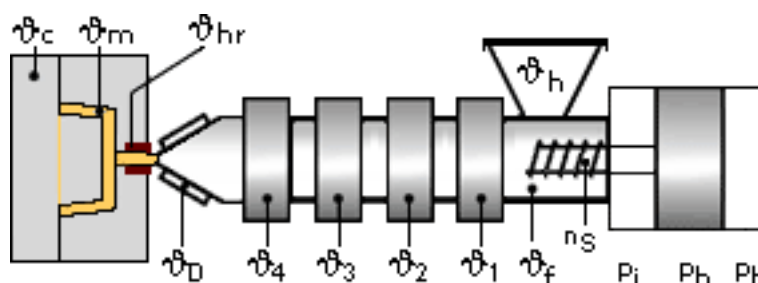
Electrical properties	Value	Unit	Test Standard
Relative permittivity - 1 MHz	4.7	-	IEC 60250
Dissipation factor - 1 MHz	300	E-4	IEC 60250
Volume resistivity	5E10	Ohm*m	IEC 60093
Surface resistivity	3E15	Ohm	IEC 60093
Electric strength	13	kV/mm	IEC 60243-1
Comparative tracking index CTI	>600	-	IEC 60112

Mechanical-TPE properties	Value	Unit	Test Standard
Stress at 5% elongation	3	MPa	ISO 527-1/-2

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Mechanical-TPE properties	Value	Unit	Test Standard
Stress at 10% elongation	5	MPa	ISO 527-1/-2
Stress at 50% elongation	8	MPa	ISO 727-1/2
Shore D hardness (15s)	40	-	ISO 868
Tear strength (Die C, parallel)	84	kN/m	ISO 34-1

Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.05%

To avoid hydrolytic degradation during processing, Riteflex resins have to be dried to a moisture level equal to or less than 0.05%. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-40°F (-40°C) at 225°F (107°C) for 4 hours.

For subsequent storage of the material in the dryer until processed (<= 60 h) it is necessary to lower the temperature to 100° C.

Drying time: 4 h

Drying temperature: 100 - 110 °C

Temperature:

	ϕManifold	ϕMold	ϕMelt	ϕNozzle	ϕZone4	ϕZone3	ϕZone2	ϕZone1	ϕFeed	ϕHopper
min (°C)	170	20	170	170	170	170	170	160	160	20
max (°C)	205	55	205	205	205	200	200	180	180	50

Speed:

Injection speed: medium-fast

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General Disclaimer

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Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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