

PRODUCT INFORMATION

RITEFLEX 663

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

ISO short Form ISO 18064: TPC-ET Pellets

Key Features

- Unfilled
- Designed for injection moulding applications

Availability

- Natural and Black colours

Compliance

- Stellantis - Chrysler CPN 5003

Process

- INJECTION MOULDING

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Dielectric Strength +23 °C (AC)	IEC 60243-1	kV/mm	14		
Tracking Resistance CTI	UL 746	PLC	0		
Dielectric constant (Dk), 1 MHz	IEC 60250	-	4		
Volume resistivity, +23 °C	IEC 62631-3-1	Ohm*m	2E13		
Surface resistivity, +23 °C	IEC 62631-3-2	Ohm	1E16		
PHYSICAL					
Density (+23 °C)	ISO 1183	g/cm ³	1,24		
Water absorption (24 h/+23 °C)	ISO 62	%	0,5		
Melting temperature (10 °C/min)	ISO 11357	°C	212		
Melt Flow Rate MFR (240 °C - 2,16 kg)	ISO 1133	g/10 min	19		
Molding shrinkage (parallel)	ISO 294	%	1,7 - 2,0		
Molding shrinkage (perpendicular)	ISO 294	%	1,7 - 2,1		
MECHANICAL					
Shore D hardness, 15 s	ISO 868	Shore D	63		
Tensile stress at 5% strain, 1BA	ISO 527	MPa	13		
Tensile stress at 10% strain, 1BA	ISO 527	MPa	18		

The listed data are in the normal range of product properties, they should not be used to establish specification nor as the basis of design. Values are valid for natural coloured version only.

Unless specified to the contrary, the given values have been established on standardized test specimens at room temperature. These values are for natural colour only. The figures should be regarded as guide values only and not as binding minimum values. Please note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mold/die, the processing conditions, pigments and any other additives.

All information, recommendation or technical advice provided by TARO PLAST S.p.A. are given in good faith but without warranty, to the best of its knowledge and based on current procedures in effect. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing methods and conditions of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely under your own responsibility.

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Tensile modulus	ISO 527	MPa	350
Tensile stress at 50% strain, 1BA	ISO 527	MPa	19
Tensile stress at yield, speed 50 mm/min	ISO 527	MPa	21
Tensile strain at yield, speed 50 mm/min	ISO 527	%	24
Tensile stress at 50% strain, speed 50 mm/min	ISO 527	MPa	21
Tensile stress at break, speed 50 mm/min	ISO 527	MPa	38
Tensile strain at break, speed 50 mm/min	ISO 527	%	> 300
Tensile stress at break, 1BA	ISO 527	MPa	38
Tensile nominal strain at break, speed 50 mm/min	ISO 527	%	> 50
Flexural modulus (-40 °C)	ISO 178	MPa	1900
Flexural modulus (+23 °C)	ISO 178	MPa	300
Flexural stress (+23 °C)	ISO 178	MPa	15
CHARPY notched impact (+23 °C)	ISO 179/1eA	kJ/m ²	105
CHARPY unnotched impact (+23 °C)	ISO 179/1eU	kJ/m ²	NB
CHARPY notched impact (-30 °C)	ISO 179/1eA	kJ/m ²	22
CHARPY unnotched impact (-30 °C)	ISO 179/1eU	kJ/m ²	NB
Tear strength, Die C, parallel	ISO 34-1	kN/m	160
IZOD impact strength notched (+23 °C)	ISO 180/1A	kJ/m ²	74
IZOD impact strength notched (-40 °C)	ISO 180/1A	kJ/m ²	7
Bayshore resilience	ASTM D2632	%	40
Ross flex	ASTM D1052	cycles	> 1000000

THERMAL

Softening temperature - 1 kg (VST/A/50)	ISO 306	°C	194
Deflection temperature 0,45 MPa (HDT B)	ISO 75/B	°C	114
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K ⁻¹	1,8x10 ⁽⁻⁴⁾

FLAMMABILITY

Flame rate (1,5 mm)	UL94	Class	HB
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INJECTION MOULDING	Value
Drying Temperature (Desiccant Dryer)	100 - 110°C
Drying Time (Desiccant Dryer)	2 - 4 h
Suggested Max Moisture	< 0,05%
Suggested Max Regrind	< 20%
Melt Temperature	215 - 235°C
Hopper Temperature	20 - 50°C
Feed Temperature	200 - 215°C
Rear Temperature	200 - 215°C
Middle Temperature	215 - 230°C
Front Temperature	215 - 235°C
Nozzle Temperature	215 - 235°C
Hot runner temperature	215 - 235°C
Mould Temperature	20 - 55°C

Notes All TPC-ET (Pibiflex/Riteflex) compounds must be stored indoors at a temperature below 50°C / 120°F avoiding humidity and direct sunlight as well. Despite a longer shelf storage life without loss of properties, we recommend using the material within 6 months from the production date. During processing, a dehumidifying hopper dryer is recommended at a temperature of 60 to 80°C. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine or extruder size, part geometry and design. To avoid hydrolytic degradation during processing, all TPC-ET (Pibiflex/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°C (-40°F) at 107°C (225°F) 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.

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