

RITFLEX® 447 | TPC | Unfilled

Description

Riteflex 447 is a nominal 47 Shore D thermoplastic polyester polyester elastomer with a high melting point and excellent mechanical properties.

Physical properties	Value	Unit	Test Standard
Density	1150	kg/m ³	ISO 1183
Melt flow rate (MFR)	15	g/10 min	ISO 1133
MFR test temperature	240	°C	ISO 1133
MFR test load	2.16	kg	ISO 1133
Mold shrinkage - parallel	1.3-1.8	%	ISO 294-4

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	95	MPa	ISO 527-2/1A
Nominal strain at break (50mm/min)	25	%	ISO 527-2/1A
Flexural modulus (23°C)	90	MPa	ISO 178
Flexural strength (23°C)	6	MPa	ISO 178
Flexural stress @ 3.5% strain	4	MPa	ISO 178
Charpy notched impact strength @ 23°C	NB	kJ/m ²	ISO 179/1eA
Charpy notched impact strength @ -30°C	45.0	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
Notched impact strength (Izod) @ 23°C	NB	kJ/m ²	ISO 180/1A
Notched impact strength (Izod) @ -30°C	N	kJ/m ²	ISO 180/1A
Bayshore resilience	59	%	Internal

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	212	°C	ISO 11357-1,-2,-3
DTUL @ 0.45 MPa	60	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	2.2	E-4/°C	ISO 11359-2
Flammability 5V at thickness h	HB	class	UL94
thickness tested (5V)	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	4E12	Ohm*m	IEC 60093
Surface resistivity	2E15	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
Strain at break	800	%	ISO 527-1/-2
Stress at break	25	MPa	ISO 527-1/-2

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Contact Information

Americas

Ticona North American Headquarters
Product Information Service
8040 Dixie Highway
Florence, KY 41042
USA
Tel.: +1-800-833-4882
Tel.: +1-859-372-3244
email: prodinfo@ticona.com
Ticona on the web: www.ticona.com

Customer Service

Tel.: +1-800-526-4960
Tel.: +1-859-372-3214
Fax: +1-859-372-3125

Europe

Ticona GmbH
Information Service
Tel.: +49 (0) 180-5842662 (Germany)
+49 (0) 69-30516299 (Europe)
Fax: +49 (0) 180-2021202 (Germany & Europe)
email: infoservice@ticona.de
Internet: www.ticona.com

General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

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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