Celanese
The chemistry inside innovation™

RITEFLEX® 430 - TPC

Description

Riteflex 430 is a nominal 30 Shore D thermoplastic polyester elastomer with low modulus and outstanding low temperature impact and tear resistance.

Physical properties	Value	Unit	Test Standard
Density	**1070**	kg/m³	ISO 1183
Melt flow rate, MFR	**15**	g/10min	ISO 1133
MFR temperature	**230**	°C	ISO 1133
MFR load	**2.16**	kg	ISO 1133
Water absorption, 23°C-sat	**0.7**	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile nominal strain at break, 50mm/min	**800**	%	ISO 527-2/1A
Tensile stress at break, 50mm/min	**20**	MPa	ISO 527-2/1A
Flexural modulus, 23°C	**25**	MPa	ISO 178
Charpy impact strength, 23°C	**NB**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	**NB**	kJ/m²	ISO 179/1eA
Izod impact notched, 23°C	**NB**	kJ/m²	ISO 180/1A
Izod impact unnotched, 23°C	**NB**	kJ/m²	ISO 180/1U
Bayshore resilience	**65**	%	ASTM D 2632

Mechanical properties (TPE)	Value	Unit	Test Standard
Shore A hardness, 15s	**80**	-	ISO 868
Shore D hardness, 15s	**30**	-	ISO 868
Tear strength, Die C/parallel	**75**	kN/m	ISO 34-1
Tear strength	**75**	kN/m	ISO 34-1

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	**170**	°C	ISO 11357-1/-3

Typical injection moulding processing conditions

Pre Drying	Value	Unit	Test Standard
Necessary low maximum residual moisture content	**0.05**	%	-
Drying time	**4**	h	-
Drying temperature	**100 - 110**	°C	-
Temperature	**Value**	**Unit**	**Test Standard**
Hopper temperature	**20 - 50**	°C	-
Feeding zone temperature	**155 - 170**	°C	-
Zone1 temperature	**155 - 170**	°C	-
Zone2 temperature	**170 - 180**	°C	-
Zone3 temperature	**170 - 180**	°C	-
Zone4 temperature	**170 - 180**	°C	-
Nozzle temperature	**170 - 190**	°C	-
Melt temperature	**170 - 190**	°C	-
Mold temperature	**20 - 55**	°C	-
Hot runner temperature	**170 - 190**	°C	-
Speed	**Value**	**Unit**	**Test Standard**
Injection speed	**medium-fast**	-	-

Other text information

Pre-drying

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

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be done in a dehumidifying hopper dryer capable of dewpoints <-40°F (-40°C) at 225°F (107°C) for 4 hours.

Longer pre-drying times/storage

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

Characteristics

Product Categories	Delivery Form
Unfilled	Pellets

Processing

Coating, Film extrusion, Injection molding, Other extrusion, Sheet