Celanese
The chemistry inside innovation™

PIBIFLEX® 5880 - TPC

Description

PIBIFLEX® 5880 is a thermoplastic polyester elastomer with nominal shore D hardness of 58 and medium modulus.

Physical properties

ISO	Value	Unit	Test Standard
Density	**1240**	kg/m³	ISO 1183

Mechanical properties

ISO	Value	Unit	Test Standard
Flexural modulus, 23°C	**300**	MPa	ISO 178
Charpy notched impact strength, 23°C	**NB**	kJ/m²	ISO 179/1eA
Izod impact notched, 23°C	**NB**	kJ/m²	ISO 180/1A
Shore D hardness, 15s	**54**	-	ISO 868

Thermal properties

ISO	Value	Unit	Test Standard
Melting temperature, 10°C/min	**218**	°C	ISO 11357-1/-3
Vicat softening temperature, 50°C/h 10N	**196**	°C	ISO 306
Limiting oxygen index (LOI)	**20**	%	ISO 4589-1/-2

Typical injection moulding processing conditions

Pre Drying

	LowMaxRes	DryTime	DryTemp
max	0.06 %	3 h	100 °C

Temperature

	HRTemp	CavTemp	MTemp	Nozzle Temp	Z4Temp	Z3Temp	Z2Temp	Z1Temp	FeedTemp
max	255 °C	55 °C	260 °C	265 °C	255 °C	255 °C	250 °C	220 °C	50 °C
min	235 °C	45 °C	240 °C	245 °C	235 °C	235 °C	230 °C	210 °C	20 °C

Other text information

Pre-drying

To avoid hydrolytic degradation during processing, Pibiflex 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.

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.