Celanese
The chemistry inside innovation™

HOSTAFORM® C 9021 TF5

HOSTAFORM®

Hostaform® C 9021 TF5 is a medium flowing, low level polytetraflouroethylene filled (PTFE) product designed for use in wear applications against plastics, metal, glass or ceramic mating surfaces where silicone lubricants can not be tolerated.

Product information

Resin Identification	POM+PTFE	ISO 1043
Part Marking Code	>POM+PTFE<	ISO 11469

Rheological properties

Melt volume-flow rate	8	cm^3/10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	2.1	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.8	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	2600	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	58	MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	9	%	ISO 527-1/-2
Charpy impact strength, 23°C	125	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	110	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	5.2	kJ/m^2	ISO 179/1eA
Poisson's ratio	0.38[C]		

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	102	°C	ISO 75-1/-2

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Water absorption, 2mm	0.65	%	Sim. to ISO 62
Density	1440	kg/m^3	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	100	°C
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	195	°C
Min. melt temperature	190	°C
Max. melt temperature	200	°C
Screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	100	°C
Min. mould temperature	80	°C
Max. mould temperature	120	°C
Hold pressure range	60 - 120	MPa
Back pressure	2	MPa

HOSTAFORM® C 9021 TF5

HOSTAFORM®

Ejection temperature	134 °C

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Additives	Release agent
Special characteristics	Low wear / Low friction

Additional information

Injection molding

Preprocessing

General drying is not necessary due to low moisture absorption of the resin.

In case of bad storage conditions (water contact or condensed water) the use of a recirculating air dryer (100 to 120 °C / max. 40 mm layer / 3 to 6 hours) is recommended.

Max. Water content 0,2 %

Processing

Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.

Postprocessing

Conditioning e.g. moisturizing is not necessary.

Processing Notes

Pre-Drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be necessary to prevent splay and odor problems.

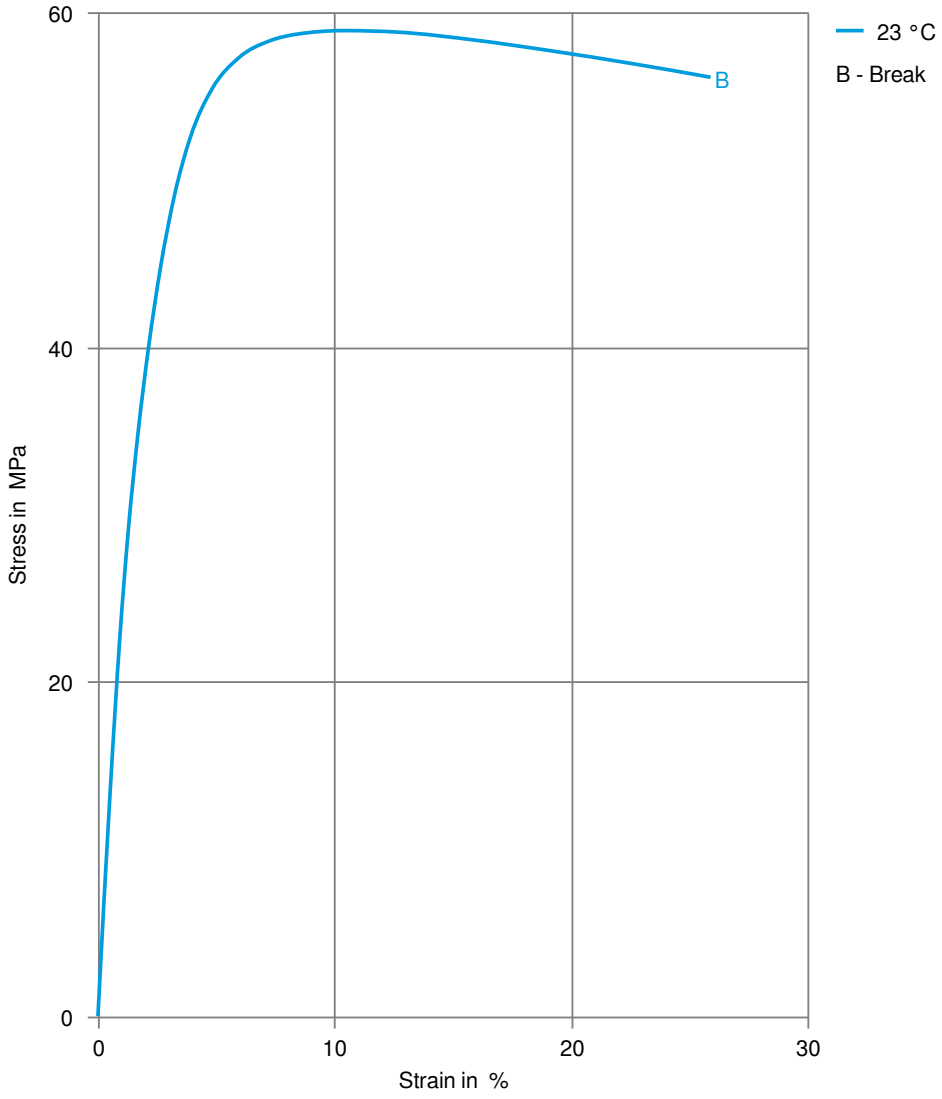
Storage

The product can then be stored in standard conditions until processed.

HOSTAFORM® C 9021 TF5

HOSTAFORM®

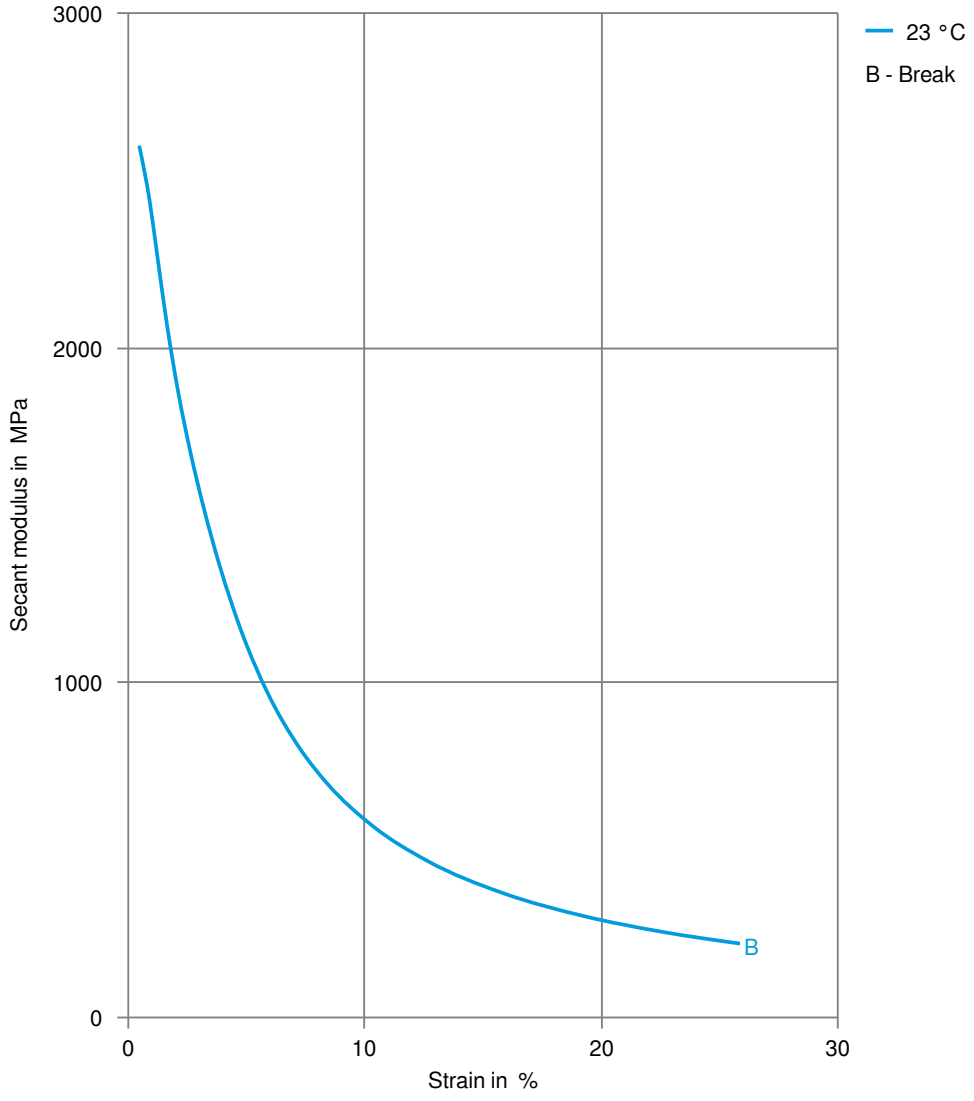
Stress-strain



HOSTAFORM® C 9021 TF5

HOSTAFORM®

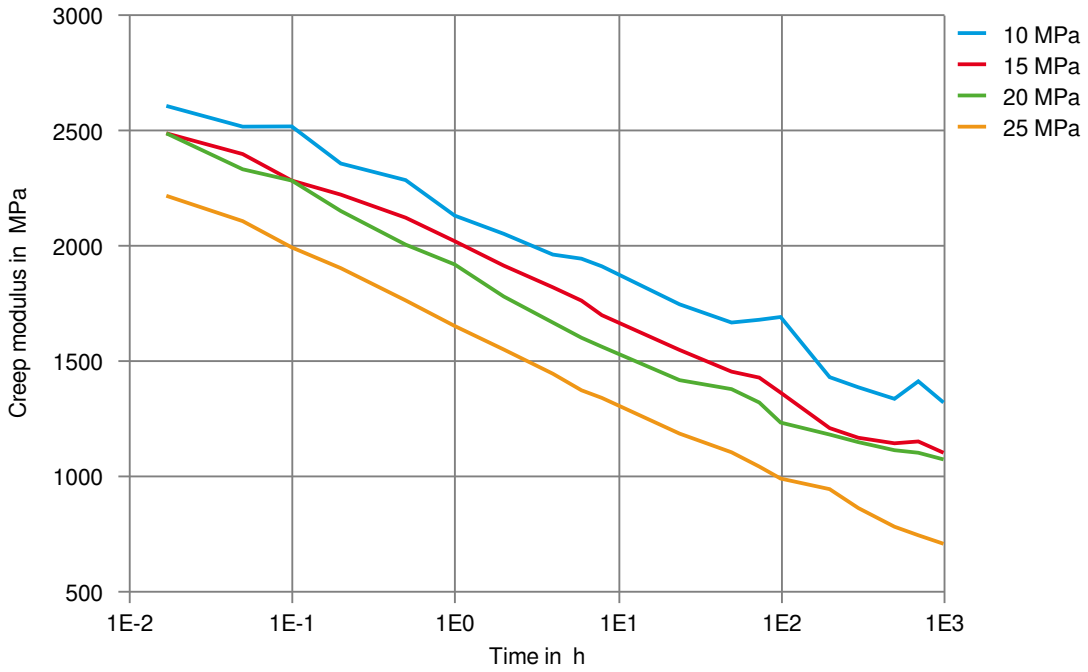
Secant modulus-strain



HOSTAFORM® C 9021 TF5

HOSTAFORM®

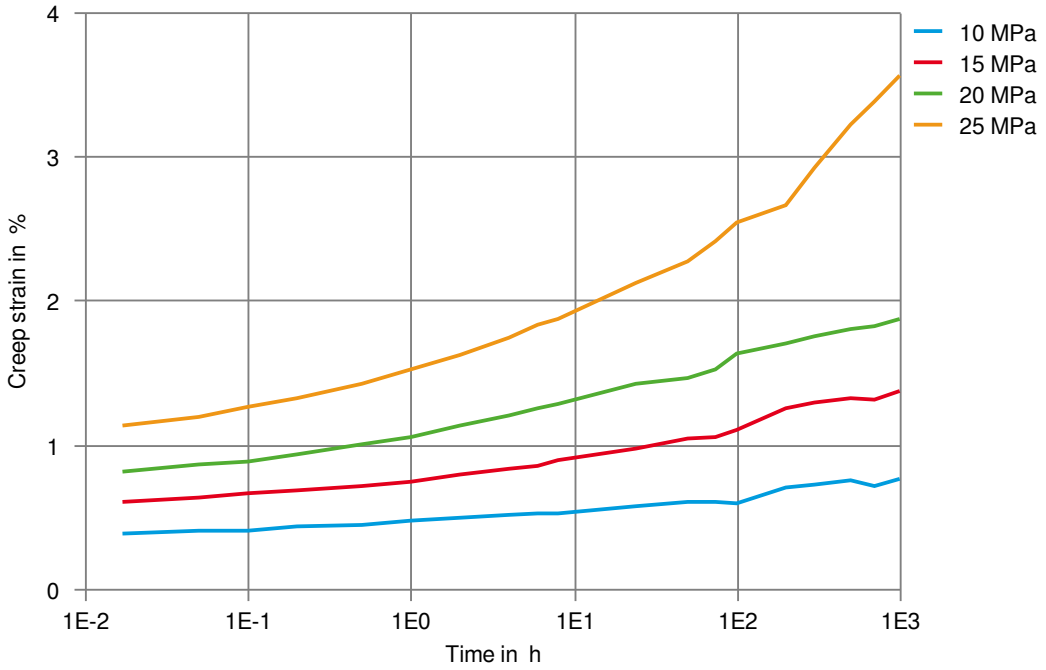
Creep modulus-time 23 °C



HOSTAFORM® C 9021 TF5

HOSTAFORM®

Creep strain-time 23 °C



Revised: 2024-12-11 Source: Celanese Materials Database