HOSTAFORM® C 9021 TF5

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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	374	°F	
Load	4.76	lb	
Molding shrinkage, parallel	2.1	%	ISO 294-4, 2577
Molding shrinkage, normal	1.8	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	377000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	8400	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	9	%	ISO 527-1/-2
Charpy impact strength, 23°C	59.5	ftlb/in^2	ISO 179/1eU
Charpy impact strength, -30°C	52.3	ftlb/in^2	ISO 179/1eU
Charpy notched impact strength, 23°C	2.47	ftlb/in^2	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	331	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	216	°F	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	0.052	lb/in^3	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	383	°F
Min. melt temperature	374	°F
Max. melt temperature	392	°F
Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F
Max. mold temperature	248	°F
Hold pressure range	8700 - 17400	psi
Hold Pressure Time (h is the max. wall thickness of the part in mm)	$2h^2$-3	s
Back pressure	290	psi

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Ejection temperature	273 °F

Characteristics

Processing	Injection Molding
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.

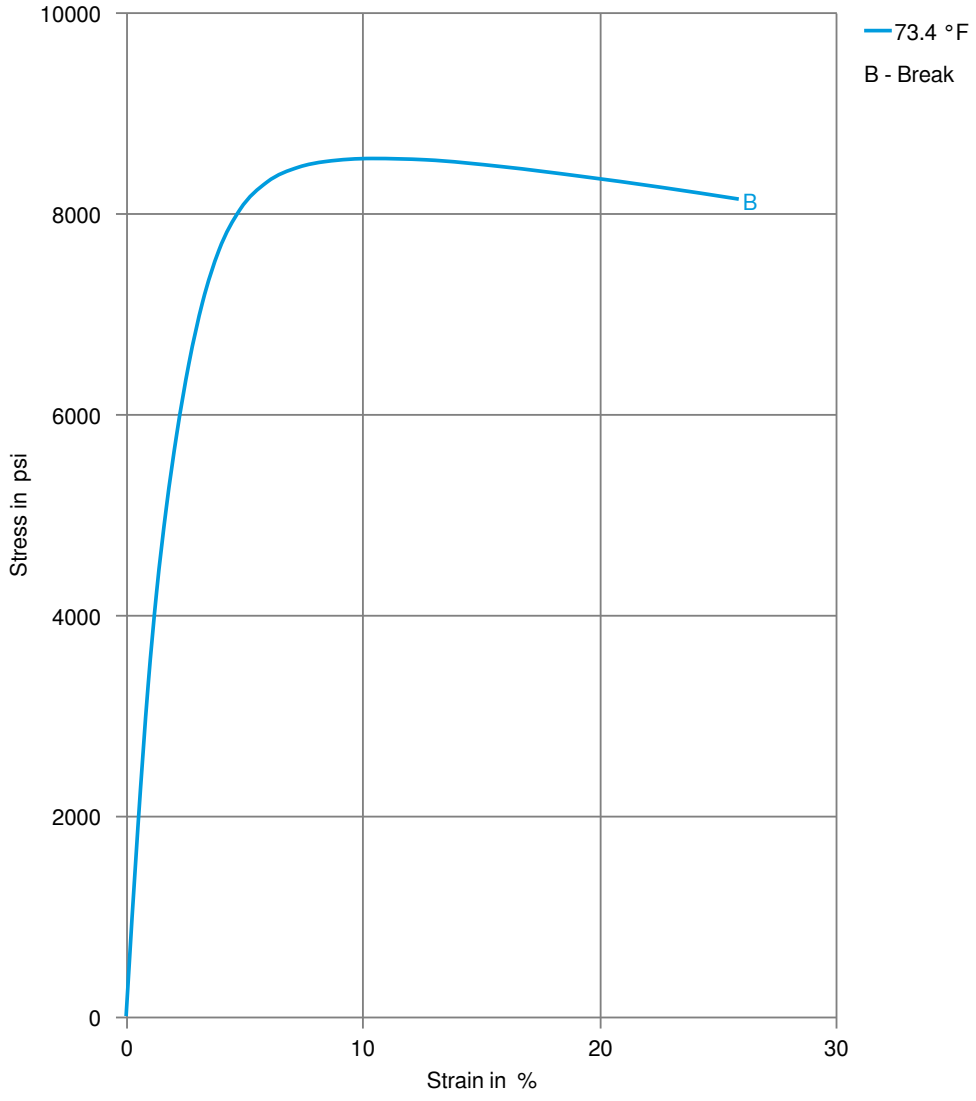
Storage

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

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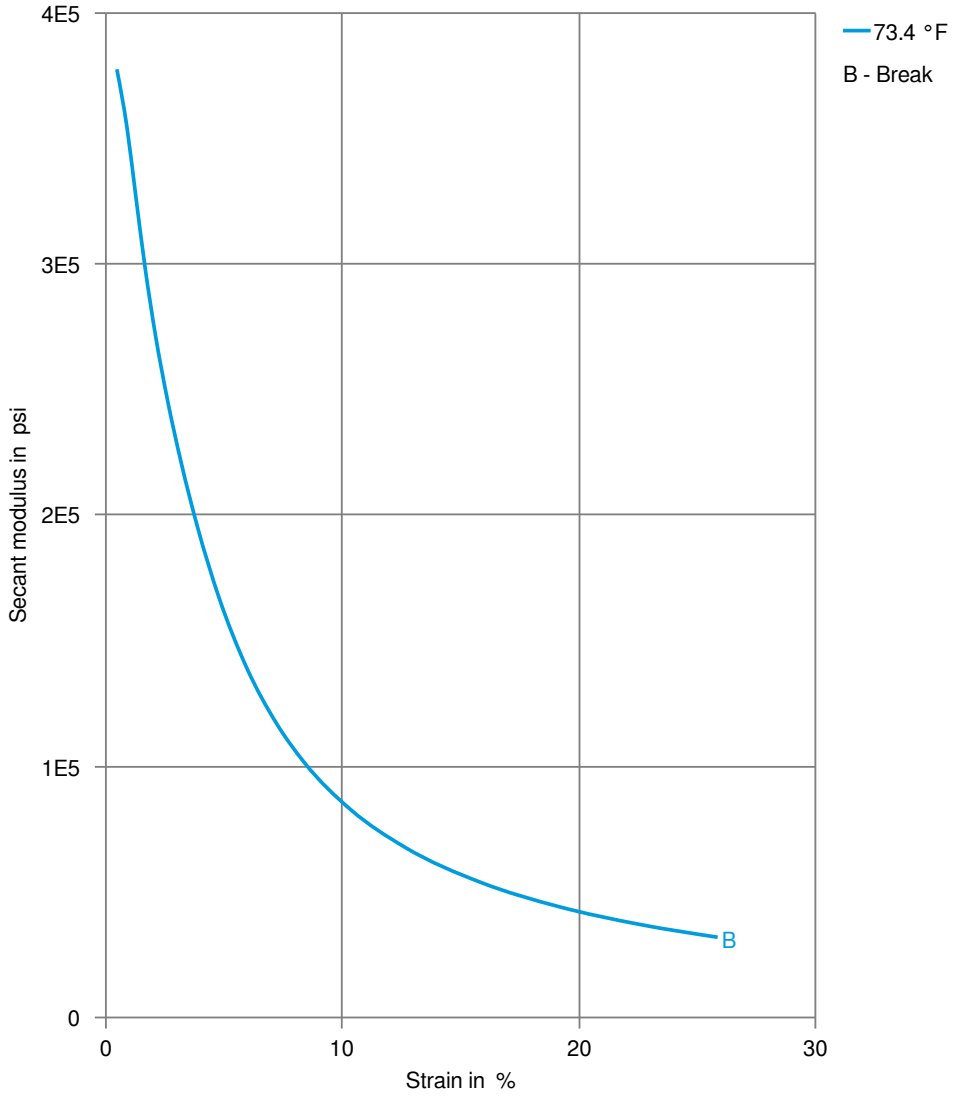
Stress-strain



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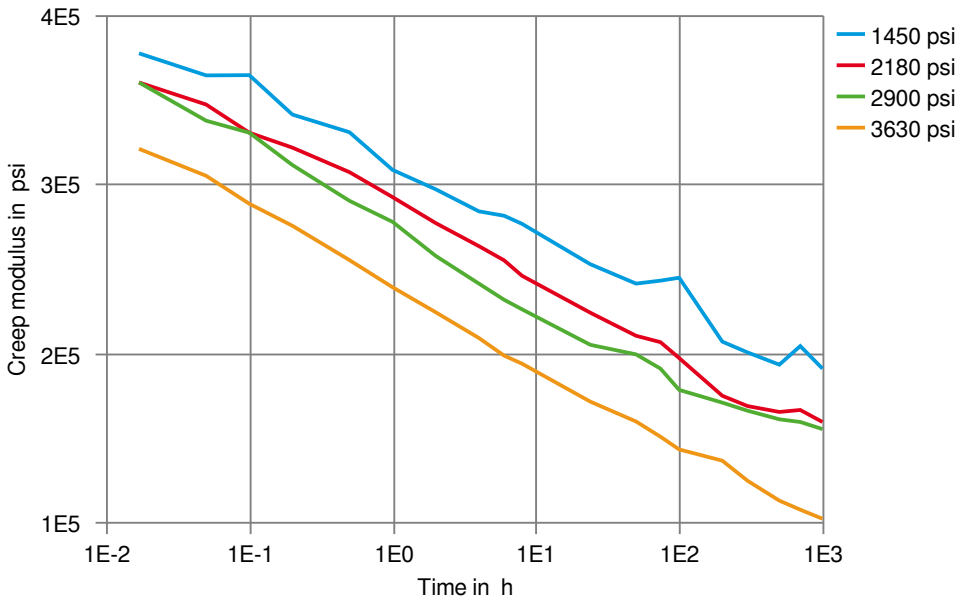
Secant modulus-strain



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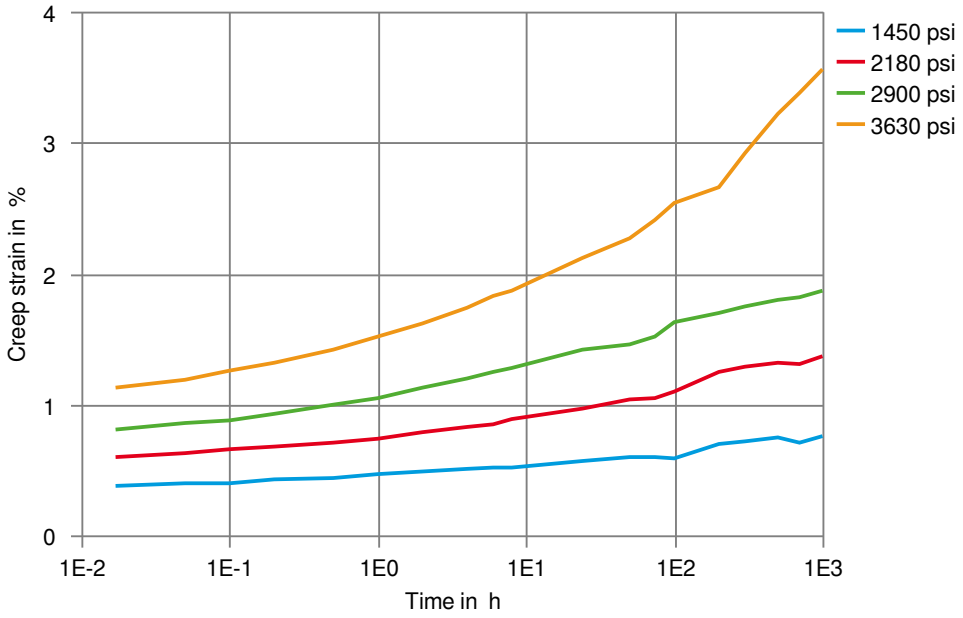
Creep modulus-time 73.4 °F



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Creep strain-time 73.4 °F



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