

TECNOPRENE® HF GF/20 V0 - PP
Description

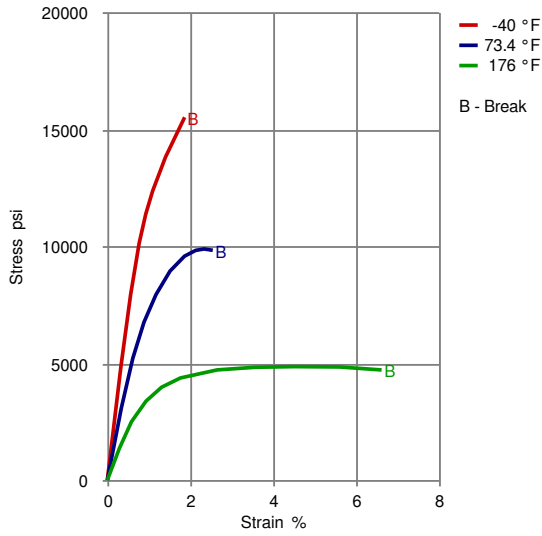
Polypropylene, homopolymer, 20% glass fiber reinforced, chemically coupled, V0, halogen free, laser markable

Physical properties	Value	Unit	Test Standard
Density	77.4	lb/ft ³	ISO 1183
Melt flow rate, MFR	4	g/10min	ISO 1133
MFR temperature	446	°F	ISO 1133
MFR load	4.76	lb	ISO 1133
Molding shrinkage, parallel (flow)	0.3 - 0.6	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	0.7 - 0.9	%	ISO 294-4, 2577
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	942747	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	9570	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	3	%	ISO 527-1, -2
Flexural modulus, 23°C	899000	psi	ISO 178
Charpy impact strength, 23°C	14.3	ft-lb/in ²	ISO 179/1eU
Charpy impact strength, -30°C	11.4	ft-lb/in ²	ISO 179/1eU
Charpy notched impact strength, 23°C	3.09	ft-lb/in ²	ISO 179/1eA
Charpy notched impact strength, -30°C	2.38	ft-lb/in ²	ISO 179/1eA
Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	279	°F	ISO 75-1, -2
Vicat softening temperature, 50°C/h 50N	275	°F	ISO 306
Flammability @3.2mm nom. thickn.	V-0	class	UL 94
Flammability at thickness h	V-0	class	UL 94
thickness tested (h)	0.0630	in	UL 94
UL recognition (h)	UL	-	UL 94
Electrical properties	Value	Unit	Test Standard
Dielectric constant (Dk), 1.9GHz	3.29	-	IEC 61189-2-721
Dissipation factor, 1.9GHz	44	E-4	IEC 61189-2-721
Volume resistivity, 23°C	3.7E13	Ohm*m	IEC 62631-3-1
Surface resistivity, 23°C	5.9E15	Ohm	IEC 62631-3-2
Electric strength, 23°C (AC)	1010	kV/in	IEC 60243-1

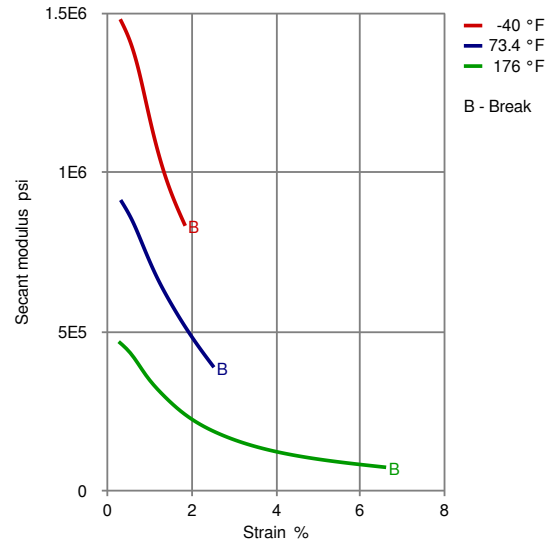
TECNOPRENE® HF GF/20 V0 - PP

Diagrams

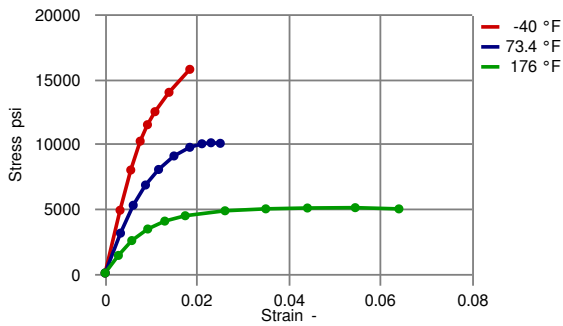
Stress-strain



Secant modulus-strain



True Stress-strain



No yield at -40°C
 23°C yield at 0.02313 strain, 69.377 stress
 80°C yield at 0.04420 strain, 34.628 stress
 Poisson's ratio used: 0.40

Typical injection moulding processing conditions

Pre Drying	Value	Unit
Drying time	2 - 3	h
Drying temperature	176 - 212	°F
Temperature	Value	Unit
Zone1 temperature	356 - 392	°F
Zone2 temperature	374 - 410	°F
Zone3 temperature	392 - 428	°F
Nozzle temperature	401 - 437	°F

TECNOPRENE® HF GF/20 V0 - PP

Mold temperature 122 - 176 °F

Other text information

Longer pre-drying times/storage

This product should be stored in a covered facility and kept away from moisture and heat.

Characteristics

Special Characteristics	Flame retardant, Laser markable
Product Categories	Glass reinforced
Processing	Injection molding
Additives	Flame retarding agent

Other Approvals

OEM	Specification	Additional Information
VW Group	VW44045	NERO 900 (with deviations)