HOSTAFORM® M15HP - POM

Description

Hostaform® acetal copolymer grade M15HP is a high viscosity polymer providing optimum performance in general purpose injection molding. This grade provides overall excellent performance in applications requiring high stiffness.

Physical properties	Value	Unit	Test Standard
Density	**1410**	kg/m³	ISO 1183
Melt volume rate, MVR	**1,3**	cm³/10min	ISO 1133
MVR temperature	**190**	°C	ISO 1133
MVR load	**2,16**	kg	ISO 1133
Molding shrinkage, parallel	**2,3**	%	ISO 294-4, 2577
Molding shrinkage, normal	**1,9**	%	ISO 294-4, 2577
Water absorption, 23°C-sat	**0,75**	%	ISO 62
Humidity absorption, 23°C/50%RH	**0,2**	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	**2800**	MPa	ISO 527-2/1A
Tensile stress at yield, 50mm/min	**68**	MPa	ISO 527-2/1A
Tensile strain at yield, 50mm/min	**16**	%	ISO 527-2/1A
Flexural modulus, 23°C	**2750**	MPa	ISO 178
Charpy impact strength, 23°C	**280**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**235**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	**11**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**8,5**	kJ/m²	ISO 179/1eA
Izod impact notched, 23°C	**9,5**	kJ/m²	ISO 180/1A
Compressive stress at 1% strain	**29**	MPa	ISO 604
Compressive stress at 6% strain	**93**	MPa	ISO 604
Rockwell hardness	**84**	M-Scale	ISO 2039-2

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	**173**	°C	ISO 11357-1/-3
DTUL at 1.8 MPa	**101**	°C	ISO 75-1, -2
DTUL at 0.45 MPa	**158**	°C	ISO 75-1, -2
Vicat softening temperature, 50°C/h 10N	**167**	°C	ISO 306
Vicat softening temperature, 50°C/h 50N	**166**	°C	ISO 306
Coeff. of linear therm expansion, parallel	**1,1**	E-4/°C	ISO 11359-2
Coeff. of linear therm expansion, normal	**1,2**	E-4/°C	ISO 11359-2
Melting point	**165**	°C	Internal

Test specimen production	Value	Unit	Test Standard
Processing conditions acc. ISO	**9988-2**	-	Internal
Injection Molding, melt temperature	**210**	°C	ISO 294
Injection Molding, mold temperature	**100 - 90**	°C	ISO 294
Injection Molding, injection velocity	**140**	mm/s	ISO 294
Injection Molding, pressure at hold	**86**	MPa	ISO 294

Rheological calculation properties	Value	Unit	Test Standard
Density of melt	**1170**	kg/m³	Internal

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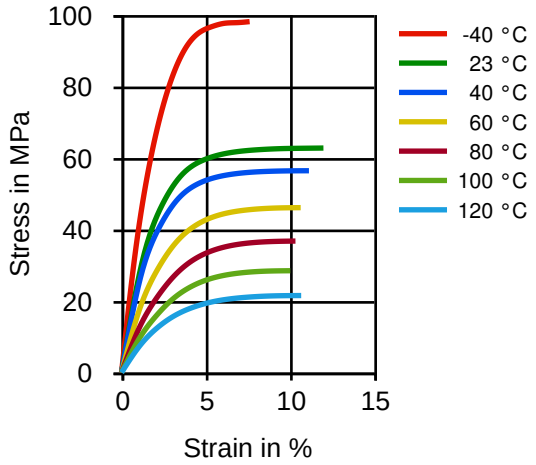
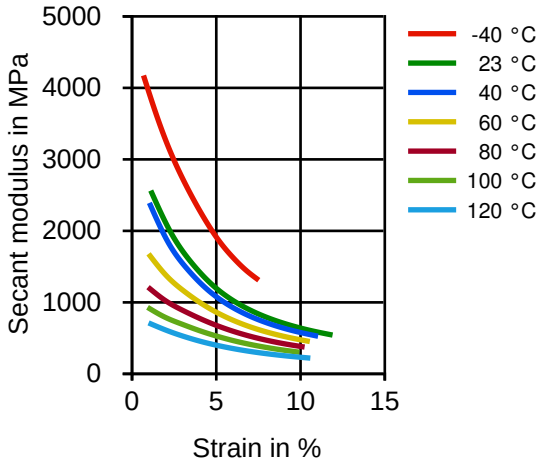
Diagrams

Stress-strain



Secant modulus-strain



Typical injection moulding processing conditions

Pre Drying	Value	Unit	Test Standard
Drying time	**3 - 4**	h	-
Drying temperature	**100 - 120**	°C	-
Temperature	**Value**	**Unit**	**Test Standard**
Zone1 temperature	**190 - 200**	°C	-
Zone2 temperature	**190 - 210**	°C	-
Zone3 temperature	**190 - 215**	°C	-
Zone4 temperature	**190 - 220**	°C	-
Die temperature	**190 - 220**	°C	-
Melt temperature	**205 - 220**	°C	-
Cavity temperature	**90 - 120**	°C	-
Hot runner temperature	**190 - 220**	°C	-
Pressure	**Value**	**Unit**	**Test Standard**
Back pressure max.	**40**	bar	-
Speed	**Value**	**Unit**	**Test Standard**
Injection speed	**slow**	-	-

Other text information

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.

Characteristics

Product Categories

Unfilled

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General Disclaimer

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