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Advanced Modified Polymers

Ticona
Performance Driven Solutions™

HOSTAFORM® HS15 | POM | Unfilled

Description

Preliminary Data Sheet

Hostaform® HS15, acetal copolymer (POM) is a high viscosity injection molding grade providing excellent performance in high demanding injection molding applications. Hostaform® HS15 provides optimum all-round mechanical characteristics in terms of strength, toughness and temperature performance without modification compared to other acetal copolymers.

Physical properties	Value	Unit	Test Standard
Density	**1420**	kg/m³	ISO 1183
Melt volume rate (MVR)	**1.4**	cm³/10min	ISO 1133
MVR test temperature	**190**	°C	ISO 1133
MVR test load	**2.16**	kg	ISO 1133
Mold shrinkage - parallel	**2.2**	%	ISO 294-4
Mold shrinkage - normal	**1.8**	%	ISO 294-4
Water absorption (23°C-sat)	**0.75**	%	ISO 62

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	**3100**	MPa	ISO 527-2/1A
Tensile stress at yield (50mm/min)	**70**	MPa	ISO 527-2/1A
Tensile strain at yield (50mm/min)	**25**	%	ISO 527-2/1A
Flexural modulus (23°C)	**2700**	MPa	ISO 178
Charpy impact strength @ 23°C	**NB**	kJ/m²	ISO 179/1eU
Charpy notched impact strength @ 23°C	**14.0**	kJ/m²	ISO 179/1eA
Charpy notched impact strength @ -30°C	**11.0**	kJ/m²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	**176**	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	**102**	°C	ISO 75-1/-2
Vicat softening temperature B50 (50°C/h 50N)	**170**	°C	ISO 306
Coeff.of linear therm. expansion (parallel)	**1.1**	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	**1.1**	E-4/°C	ISO 11359-2

Test specimen production	Value	Unit	Test Standard
Processing conditions acc. ISO	**9988-2**	-	Internal

Rheological Calculation properties	Value	Unit	Test Standard
Density of melt	**1160**	kg/m³	Internal
Specific heat capacity of melt	**2140**	J/(kg K)	Internal

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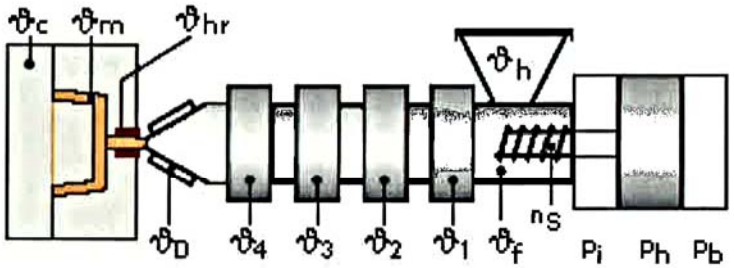
Typical injection moulding processing conditions



Pre Drying:
Drying is not normally required.

Drying time: 3 h

Drying temperature: 80 - 100 °C

Temperature:

	ϑManifold	ϑMold	ϑMelt	ϑNozzle	ϑZone4	ϑZone3	ϑZone2	ϑZone1
min (°C)	200	80	210	190	190	190	190	190
max (°C)	220	100	220	220	220	215	210	205

Pressure:

	Inj press	Hold press	Back pressure
min (bar)	800	800	0
max (bar)	1000	1000	65

Speed:

Injection speed: slow

Special Info:
Large gate recommended. Minimum backpressure of ~15 barr recommended. Do not exceed 230 C melt temperature.

Contact Information

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General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.
Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.
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Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards.
We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed (+49 (0) 69 30516299 for Europe and +1 859-372-3244 for the Americas) for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.
The products mentioned herein are not intended for use in medical or dental implants.