

HOSTAFORM® AM90S Plus | POM | Specialty
Description

Hostaform® acetal copolymer grade AM90S Plus is a standard melt viscosity acetal copolymer material containing an antimicrobial ingredient. AM90S Plus reaches maximum efficacy more rapidly than standard AM90S. Hostaform® AM90SPlus provides the same physical and mechanical performance of standard Hostaform and Celcon acetal copolymer grades plus the added benefit of inhibiting bacterial growth.

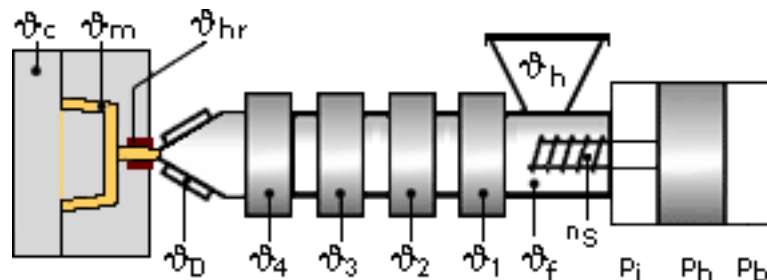
Preliminary Data Sheet

Physical properties	Value	Unit	Test Standard
Density	1410	kg/m ³	ISO 1183
Melt volume rate (MVR)	8	cm ³ /10min	ISO 1133
MVR test temperature	190	°C	ISO 1133
MVR test load	2.16	kg	ISO 1133
Mold shrinkage - parallel	2.6	%	ISO 294-4
Mold shrinkage - normal	2.2	%	ISO 294-4

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	2750	MPa	ISO 527-2/1A
Tensile stress at yield (50mm/min)	65	MPa	ISO 527-2/1A
Tensile strain at yield (50mm/min)	10	%	ISO 527-2/1A
Flexural modulus (23°C)	2650	MPa	ISO 178
Charpy notched impact strength @ 23°C	5.5	kJ/m ²	ISO 179/1eA
Charpy notched impact strength @ -30°C	5.5	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	167	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	100	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	1.1	E-4/°C	ISO 11359-2

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

Typical injection moulding processing conditions


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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.

Drying time: 3 h

Drying temperature: 80 - 100 °C

Temperature:

	↻ Manifold	↻ Mold	↻ Melt	↻ Nozzle	↻ Zone4	↻ Zone3	↻ Zone2	↻ Zone1
min (°C)	180	80	180	190	190	180	180	170
max (°C)	200	120	200	200	200	190	190	180

Pressure:

	Inj press	Hold press	Back pressure
min (bar)	600	600	0
max (bar)	1200	1200	5

Speed:

Injection speed: slow-medium

Injection Molding

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

Melt temperature 190-230 °C
 Mould temperature 80-120 °C

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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.

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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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