

HOSTAFORM® S 9364 XAP² ™ | POM | Impact Modified

Description

Hostaform® acetal copolymer grade S 9364 XAP2 [™] is highly impact modified grade for demanding applications. Hostaform® S 9364 XAP2 [™] provides a significant improvement in impact strength and flexibility over standard impact modified grades such as Hostaform® S 9063 and S 9064, and also exhibits exceptional low emission performance meeting or exceeding the requirements of many automotive markets.

Chemical abbreviation according to ISO 1043-1: POM-HI

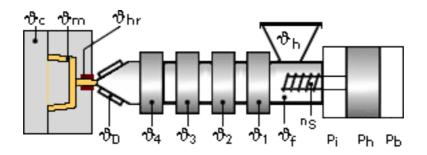
Well volume rate (MVR) 4 cm³/10min ISO 1133 MVR test temperature 190 °C ISO 1133 MVR test load 2.16 kg ISO 1133 Wold shrinkage - parallel 1.6 % ISO 294-4 Wold shrinkage - normal 1.5 % ISO 294-4 Wold shrinkage - normal 1.5 % ISO 294-4 Water absorption (23°C-sat) 0.8 % ISO 294-4 Water absorption (23°C-sat) 0.8 % ISO 527-2/1A Fensile modulus (1mm/min) 1650 MPa ISO 527-2/1A Fensile stress at yield (50mm/min) 43 MPa ISO 527-2/1A Fensile stress at yield (50mm/min) 16 % ISO 527-2/1A Fensile stress at yield (50mm/min) 16 % ISO 527-2/1A Fensile stress at yield (50mm/min) 16 % ISO 527-2/1A Fensile strength @ 23°C 1550 MPa ISO 179/1eU Charpy impact strength @ 23°C NB k.//m² ISO 179/1eU Charpy notched impact strength @ -	Physical properties	Value	Unit	Test Standard	
MVR test temperature 190 °C ISO 1133 MVR test load 2.16 kg ISO 1133 Mold shrinkage - parallel 1.6 % ISO 294-4 Mold shrinkage - normal 1.5 % ISO 294-4 Mold shrinkage - normal 0.8 % ISO 294-4 Water absorption (23°C-sat) 0.8 % ISO 62 Mechanical properties Value Unit Test Standard Fensile modulus (1mm/min) 1650 MPa ISO 527-2/1A Fensile stress at yield (50mm/min) 43 MPa ISO 527-2/1A Fensile strain at yield (50mm/min) 16 % ISO 527-2/1A Flexural modulus (23°C) 1550 MPa ISO 527-2/1A Charpy impact strength @ 23°C NB KJ/m² ISO 179/1eU Charpy inpact strength @ 23°C NB KJ/m² ISO 179/1eU Charpy notched impact strength @ -30°C NB KJ/m² ISO 179/1eA Charpy notched impact strength @ -30°C 11.0 KJ/m² ISO 179/1eA Charpy notched	Density	1370	kg/m³	ISO 1183	
MVR test load 2.16 kg ISO 1133 Mold shrinkage - parallel 1.6 % ISO 294-4 Mold shrinkage - normal 1.5 % ISO 294-4 Mold shrinkage - normal 1.5 % ISO 294-4 Mater absorption (23°C-sat) 0.8 % ISO 62 Mechanical properties Value Unit Test Standard Fensile modulus (1mm/min) 1650 MPa ISO 527-2/1A Fensile stress at yield (50mm/min) 43 MPa ISO 527-2/1A Fensile strain at yield (50mm/min) 16 % ISO 527-2/1A Flexual modulus (23°C) 1550 MPa ISO 527-2/1A Charpy impact strength @ 23°C NB kJ/m² ISO 179/1eU Charpy impact strength @ 23°C NB kJ/m² ISO 179/1eU Charpy notched impact strength @ -30°C NB kJ/m² ISO 179/1eA Charpy notched impact strength @ -30°C 11.0 kJ/m² ISO 179/1eA Charpy notched impact strength @ -30°C 11.0 kJ/m² ISO 179/1eA	Melt volume rate (MVR)	4	cm ³ /10min	ISO 1133	
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Mold shrinkage - normal1.5%ISO 294-4Water absorption (23°C-sat)0.8%ISO 62Mechanical propertiesValueUnitTest StandardFensile modulus (1mm/min)1650MPaISO 527-2/1AFensile stress at yield (50mm/min)43MPaISO 527-2/1AFensile strain at yield (50mm/min)16%ISO 527-2/1AFensile strain at yield (50mm/min)16%ISO 527-2/1AFlexural modulus (23°C)1550MPaISO 178Charpy impact strength @ 23°CNBkJ/m2ISO 179/1eUCharpy notched impact strength @ 23°C21.0kJ/m2ISO 179/1eUCharpy notched impact strength @ 23°C21.0kJ/m2ISO 179/1eACharpy notched impact strength @ -30°C11.0kJ/m2ISO 11357-1,-2,-3DTUL @ 1.8 MPa75°CISO 11357-1,-2,-3DTUL @ 0.45 MPa140°CISO 75-1/-2Coeff.of linear therm. expansion (parallel)1.2E-4/°CISO 11359-2	MVR test load	2.16	kg	ISO 1133	
Water absorption (23°C-sat)0.8%ISO 62Mechanical propertiesValueUnitTest StandardFensile modulus (1mm/min)1650MPaISO 527-2/1AFensile stress at yield (50mm/min)43MPaISO 527-2/1AFensile strain at yield (50mm/min)16%ISO 527-2/1AFensile strain at yield (50mm/min)16%ISO 527-2/1AFlexural modulus (23°C)1550MPaISO 178Charpy impact strength @ 23°CNBkJ/m²ISO 179/1eUCharpy notched impact strength @ 23°C21.0kJ/m²ISO 179/1eACharpy notched impact strength @ -30°C11.0kJ/m²ISO 179/1eACharpy notched impact strength @ -30°C21.0kJ/m²ISO 179/1eACharpy notched impact strength @ -30°C11.0kJ/m²ISO 11357-1,-2,-3DTUL @ 1.8 MPa75°CISO 11357-1,-2,-3DTUL @ 0.45 MPa140°CISO 75-1/-2Coeff.of linear therm. expansion (parallel)1.2E-4/°CISO 11359-2	Mold shrinkage - parallel	1.6	%	ISO 294-4	
Mechanical propertiesValueUnitTest StandardFensile modulus (1mm/min)1650MPaISO 527-2/1AFensile stress at yield (50mm/min)43MPaISO 527-2/1AFensile strain at yield (50mm/min)16%ISO 527-2/1AFlexural modulus (23°C)1550MPaISO 178Charpy impact strength @ 23°CNBkJ/m²ISO 179/1eUCharpy impact strength @ -30°CNBkJ/m²ISO 179/1eUCharpy notched impact strength @ 23°C21.0kJ/m²ISO 179/1eUCharpy notched impact strength @ -30°C11.0kJ/m²ISO 179/1eACharpy notched impact strength @ -30°C11.0kJ/m²ISO 11357-1,-2,-3DTUL @ 1.8 MPa75°CISO 11357-1,-2,-3DTUL @ 0.45 MPa140°CISO 75-1/-2Coeff.of linear therm. expansion (parallel)1.2E-4/°CISO 11359-2	Mold shrinkage - normal	1.5	%	ISO 294-4	
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Charpy impact strength @ 23°CNBkJ/m2ISO 179/1eUCharpy impact strength @ -30°CNBkJ/m2ISO 179/1eUCharpy notched impact strength @ 23°C21.0kJ/m2ISO 179/1eACharpy notched impact strength @ -30°C11.0kJ/m2ISO 179/1eAThermal propertiesValueUnitTest StandardMelting temperature (10°C/min)166°CISO 11357-1,-2,-3DTUL @ 1.8 MPa75°CISO 75-1/-2DTUL @ 0.45 MPa140°CISO 75-1/-2Coeff.of linear therm. expansion (parallel)1.2E-4/°CISO 11359-2	Tensile strain at yield (50mm/min)	16	%	ISO 527-2/1A	
Charpy impact strength @ -30°C NB kJ/m² ISO 179/1eU Charpy notched impact strength @ 23°C 21.0 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) 166 °C ISO 11357-1,-2,-3 DTUL @ 1.8 MPa 75 °C ISO 75-1/-2 DTUL @ 0.45 MPa 140 °C ISO 75-1/-2 Coeff.of linear therm. expansion (parallel) 1.2 E-4/°C ISO 11359-2	Flexural modulus (23°C)	1550	MPa	ISO 178	
Charpy notched impact strength @ 23°C21.0kJ/m²ISO 179/1eACharpy notched impact strength @ -30°C11.0kJ/m²ISO 179/1eAThermal propertiesValueUnitTest StandardMelting temperature (10°C/min)166°CISO 11357-1,-2,-3DTUL @ 1.8 MPa75°CISO 75-1/-2DTUL @ 0.45 MPa140°CISO 75-1/-2Coeff.of linear therm. expansion (parallel)1.2E-4/°CISO 11359-2	Charpy impact strength @ 23°C	NB	kJ/m²	ISO 179/1eU	
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Thermal propertiesValueUnitTest StandardMelting temperature (10°C/min)166°CISO 11357-1,-2,-3DTUL @ 1.8 MPa75°CISO 75-1/-2DTUL @ 0.45 MPa140°CISO 75-1/-2Coeff.of linear therm. expansion (parallel)1.2E-4/°CISO 11359-2	Charpy notched impact strength @ 23°C	21.0	kJ/m²	ISO 179/1eA	
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OTUL @ 1.8 MPa 75 °C ISO 75-1/-2 OTUL @ 0.45 MPa 140 °C ISO 75-1/-2 Coeff.of linear therm. expansion (parallel) 1.2 E-4/°C ISO 11359-2	Thermal properties	Value	Unit	Test Standard	
DTUL @ 0.45 MPa 140 °C ISO 75-1/-2 Coeff.of linear therm. expansion (parallel) 1.2 E-4/°C ISO 11359-2	Melting temperature (10°C/min)	166	°C	ISO 11357-1,-2,-3	
Coeff.of linear therm. expansion (parallel)1.2E-4/°CISO 11359-2	DTUL @ 1.8 MPa	75	°C	ISO 75-1/-2	
	DTUL @ 0.45 MPa	140	°C	°C ISO 75-1/-2	
Coeff.of linear therm. expansion (normal) 1.1 E-4/°C ISO 11359-2	Coeff.of linear therm. expansion (parallel)	1.2	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



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Typical injection moulding processing conditions



Pre Drying:

Drying is suggested to help achieve low emission performance and to counter if material has contacted moisture through improper storage and handling.

Drying time: 3 h

Drying temperature: 80 - 100 °C

Temperature:

	^{vу} Mold	^v Melt	[™] Nozzle	^v Zone4	^v Zone3	[™] Zone2	[∜] Zone1	
min (°C)	60	180	180	180	180	180	170	
max (°C)	70	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

Special Info:

Do not heat over 205 C (~400 F) to avoid burning and discoloring product.

Contact Information

Americas

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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. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication

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