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Advanced Modified Polymers

# Hostaform<sup>®</sup> C 27021 AST

# Ticona

14.04.2008

Page 1/2

PROPERTY	VALUE	UNIT	TEST METHOD	TEST SPECIMEN
Density	1.41	g/cm <sup>3</sup>	ISO 1183	10 x 10 x 4 mm from multi-purpose test specimen (ISO 3167)
Content of reinforcing material/filler	0	% by wt.	ISO 3451, part 1	No test specimen
Volume flow rate MVR 190/2.16	24.5	cm <sup>3</sup> /10min	ISO 1133	Moulding compound
Water absorption at 23° C to saturation	0.7	%	ISO 62	80 x 80 x 1 mm
Water absorption at 23° C and 50% relative humidity to sat.	0.2	%	ISO 62	80 x 80 x 1 mm

## MECHANICAL PROPERTIES, measured under standard conditions, ISO 291-23/50

Yield stress	63	MPa	ISO 527, part 1/2; test speed 50 mm/min	multi-purpose test specimen (ISO 3167)
Elongation at yield	8	%	ISO 527, part 1/2; test speed 50 mm/min	multi-purpose test specimen (ISO 3167)
Nominal elongation at break	17	%	ISO 527, part 1/2; test speed 50 mm/min	multi-purpose test specimen (ISO 3167)
Tensile modulus	2800	MPa	ISO 527, part 1/2; test speed 1 mm/min	multi-purpose test specimen (ISO 3167)
Tensile creep modulus, 1 hour value	2400	MPa	ISO 899, part 1	multi-purpose test specimen (ISO 3167)
Tensile creep modulus, 1000 hour value	1300	MPa	ISO 899, part 1	multi-purpose test specimen (ISO 3167)
Flexural modulus	2700	MPa	ISO 178	80 x 10 x 4 mm from multi-purpose test specimen (ISO 3167)
Ball indentation hardness, 30 sec value	147	N/mm <sup>2</sup>	ISO 2039, part 1; applied load 358 N	20 x 20 x 4 mm
Impact strength (Charpy) at 23° C	120	kJ/m <sup>2</sup>	ISO 179 1eU	80 x 10 x 4 mm from multi-purpose test specimen (ISO 3167)
Impact strength (Charpy) at -30° C	120	kJ/m <sup>2</sup>	ISO 179 1eU	80 x 10 x 4 mm from multi-purpose test specimen (ISO 3167)
Notched impact strength (Charpy) at 23° C	5.5	kJ/m <sup>2</sup>	ISO 179 1eA	80 x 10 x 4 mm from multi-purpose test specimen (ISO 3167)
Notched impact strength (Charpy) at -30° C	5.5	kJ/m <sup>2</sup>	ISO 179 1eA	80 x 10 x 4 mm from multi-purpose test specimen (ISO 3167)
Penetration test work to damage		J	ISO 6603, part 2	60 x 60 x 3 mm
Penetration test deformation damage		mm	ISO 6603, part 2	60 x 60 x 3 mm

## THERMAL PROPERTIES

Heat deflection temperature HDT/A (1.8 MPa)	100	°C	ISO 75, part 1/2	80 x 10 x 4 mm from multi-purpose test specimen (ISO 3167)
Vicat softening temperature VST/B/50	150	°C	ISO 306	10 x 10 x 4 mm from multi-purpose test specimen (ISO 3167)
Melting point DSC, 10 K/min	164	°C	ISO 3146, method C1b	Moulding compound
Coefficient of linear thermal expansion between 23 and 55° C longitudinal	1.1·10 <sup>-4</sup>	1/°C	ISO 11359, part 1/2	30 x 10 x 4 mm from multi-purpose test specimen (ISO 3167)
Coefficient of linear thermal expansion between 23 and 55° C transverse		1/°C	ISO 11359, part 1/2	

## ELECTRICAL PROPERTIES, measured under standard conditions, ISO 291-23/50

Relative permittivity at 100 Hz			IEC 60250	80 x 80 x 1 mm
Relative permittivity at 1 MHz			IEC 60250	80 x 80 x 1 mm
Dissipation factor at 100 Hz			IEC 60250	80 x 80 x 1 mm
Dissipation factor at 1 MHz			IEC 60250	80 x 80 x 1 mm
Dielectric strength		kV/mm	IEC 60243, part 1	80 x 80 x 1 mm

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Page 2/2

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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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The products mentioned herein are not intended for use in medical or dental implants.

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