INEOS ABS

Data Sheet

Lustran ABS E401

Extrusion grade, very high impact resistance, high gloss surfaces

ISO Shortname: ISO 2580-1 -ABS 0, EG, 095-04-25-20

Property	Test Condition	Unit	Standard	Value
Rheological properties				
C Molding shrinkage, normal	60x60x2	%	ISO 294-4	0.5 - 0.8
C Melt volume-flow rate	220 °C; 10 kg	cm³/(10 min)	ISO 1133	5
C Molding shrinkage, parallel	60x60x2	%	ISO 294-4	0.5 - 0.8
Mechanical properties (23 °C/50 % r. h.)				
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	40
Tensile Strain at break	50 mm/min	%	acc. ISO 527-1,-2	> 15
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	1900
Flexural strength	2 mm/min	MPa	ISO 178	60
Flexural modulus	2 mm/min	MPa	ISO 178	1900
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	30
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-1A	19
C Yield strain	50 mm/min	%	ISO 527-1,-2	2.5
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	210
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	170
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	30
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	16
Ball indentation hardness		N/mm²	ISO 2039-1	85
Thermal properties				
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	94
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	100
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	99
C Burning behavior UL 94 (1.6 mm)	1.6 mm	Class	UL 94	HB
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.9
Burning rate (US-FMVSS)	2.0 mm	mm/min	ISO 3795	55
Glow wire test (GWFI)	2.0 mm	°C	IEC 60695-2-12	700
Electrical properties (23 °C/50 % r. h.)				
C Relative permittivity	100 Hz	-	IEC 60250	3.1
C Relative permittivity	1 MHz	-	IEC 60250	2.9
C Dissipation factor	100 Hz	10^{-4}	IEC 60250	50
C Dissipation factor	1 MHz	10^{-4}	IEC 60250	90
C Volume resistivity		Ohm·m	IEC 60093	1E14
C Surface resistivity		Ohm	IEC 60093	1E16
C Electric strength	1 mm	kV/mm	IEC 60243-1	35
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	600
Other properties (23 °C)				
Density		g/cm³	ISO 1183	1.040

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Property	Test Condition	Unit	Standard	Value
Processing conditions for test specimens				
C Injection molding-Melt temperature		°C	ISO 294	240
C Injection molding-Mold temperature		°C	ISO 294	70
C Injection molding-Injection velocity		mm/s	ISO 294	240

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

Disclaimer

Disclaimer for sales products

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Test values styrenics

Unless specified to the contrary, the values given have been established on standardised test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mould/die, the processing conditions and the colouring. This is valid especially for CTI.

Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded. Since excessively high temperatures are generally the result of operator error or defects in the heating system, special care and controls are essential in these areas.

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