

ELIX ABS HH P2MC

High heat resistance ABS plating grade

Major Benefits

Enhanced heat resistance Better dimensional under heat Excellent balance of heat resistance, impact strength and flowability

Chemical composition

Acrylonitrile-butadiene-styrene (ABS) copolymer modified with poly(styrene-co-maleimide) (SMI).

Physical Form

White to slightly yellowish pellets.

Typical properties*

Property	Test Condition	Standard	Unit	Value
			SI Metrics	
Rheological properties				
Melt volume-flow rate	220 °C; 10 kg	ISO 1133	cm³/(10 min)	25
Molding shrinkage, normal	60x60x2 mm	ISO 294-4	%	0.6-0.7
Molding shrinkage, parallel	60x60x2 mm	ISO 294-4	%	0.6-0.7
Mechanical properties (23 °C/50 % r. h.)				
Yield stress	50 mm/min	ISO 527-1,-2	MPa	39
Tensile modulus	1 mm/min	ISO 527-1,-2	MPa	2210
Flexural strength	2 mm/min	ISO 178	MPa	70
Flexural modulus	2 mm/min	ISO 178	MPa	2270
Izod notched impact strength	23 °C	ISO 180-1A	kJ/m²	19
	-30 °C	ISO 180-1A	kJ/m²	12
Ball indentation hardness		ISO 2039-1	N/mm²	95
Thermal properties				
Temperature of deflection under load	0.45 MPa	ISO 75-1,-2	°C	104
	1.80 MPa	ISO 75-1,-2	°C	100
Vicat softening temperature	50 N; 50 °C/h	ISO 306	°C	101
Burning behavior UL 94 (1.6 mm)	1.6 mm	UL 94	Class	HB
Coefficient of linear thermal expansion, parallel	23 to 55 °C	ISO 11359-1,-2	10-4/K	0,9
Coefficient of linear thermal expansion, transverse	23 to 55 °C	ISO 11359-1,-2	10-4/K	0,9
Burning rate (US-FMVSS)	2.0 mm	ISO 3795	mm/min	<80
Other properties (23 °C)				
Density		ISO 1183	g/cm³	1,04
Processing conditions for test specimens				

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

*Control measurements in other places may issue different results due to influences of machinery, equipment, test method or storage conditions.

Disclaimer for sales products

Disclaimer for sales products

This information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to verify the information currently provided –especially that contained in our safety data and technical information sheets– and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold and our advisory service is given in accordance with the current version of our General Conditions of Sale and Delivery

Test values

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.

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.

ELIX Polymers, S.L. - E-43006 Tarragona

Edition Version: 6 - 14.01.2025

info@elix-polymers.com