

Triax 3158

Preliminary datasheet, PA+ABS-Blend, very high heat resistance, on-line paintable (195°C), reduced moisture, improved impact strength, low coefficient of linear thermal expansion,

Property	Test Condition	Unit	Standard	Value	
				d.a.m.	cond.
Rheological properties					
Melt volume-flow rate	280 °C; 10 kg	cm ³ /(10 min)	ISO 1133	10	
Molding shrinkage, parallel	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 2577	1.1	
Molding shrinkage, normal	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 2577	1.4	
Mechanical properties (23 °C/50 % r. h.)					
Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2900	
Yield stress	50 mm/min	MPa	ISO 527-1,-2	55	
Yield strain	50 mm/min	%	ISO 527-1,-2	3.0	
Nominal strain at break	50 mm/min	%	ISO 527-1,-2	>10	
Tensile Stress at break	50 mm/min	MPa	ISO 527-1,-2	50	
Tensile Strain at break	50 mm/min	%	ISO 527-1,-2	>10	
Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	160	
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	160	
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	10	
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	8	
Flexural modulus	2 mm/min	MPa	ISO 178	3000	
Flexural strength	2 mm/min	MPa	ISO 178	88	
Flexural strain at flexural strength	2 mm/min	%	ISO 178	5.0	
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	50	
Thermal properties					
Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	92	
Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	132	
Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	160	
Vicat softening temperature	10 N; 120 °C/h	°C	ISO 306	245	
Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.7	
Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.9	
Burning behavior UL 94 (1.6 mm)		Class	UL 94	HB	
Electrical properties (23 °C/50 % r. h.)					
Relative permittivity	100 Hz	-	IEC 60250	3.6	
Relative permittivity	1 MHz	-	IEC 60250	3.3	
Dissipation factor	100 Hz	10 ⁻⁴	IEC 60250	77	
Dissipation factor	1 MHz	10 ⁻⁴	IEC 60250	148	
Volume resistivity		Ohm·m	IEC 60093	1E+13	
Surface resistivity		Ohm	IEC 60093	1E+15	
Other properties (23 °C)					
Density		kg/m ³	ISO 1183	1150	

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				d.a.m.	cond.
Glass fiber / glass bead / filler content		%	ISO 3451-1	9	
Processing conditions for test specimens					
Injection molding-Melt temperature		°C	ISO 294	280	
Injection molding-Mold temperature		°C	ISO 294	80	
Injection molding-Injection velocity		mm/s	ISO 294	40	

Disclaimer

Disclaimer for developmental products

This is a developmental product. Further information, including amended or supplementary data on hazards associated with its use, may be compiled in the future. For this reason no assurances are given as to type conformity, processability, long-term performance characteristics or other production or application parameters. Therefore, the purchaser/user uses the product entirely at his own risk without having been given any warranty or guarantee and agrees that the supplier shall not be liable for any damages, of whatever nature, arising out of such use. Commercialization and continued supply of this material are not assured. Its supply may be discontinued at any time. 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 standardized 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.

Conditioning

Conditioning in accordance with ISO 1110 (70°C; 62% r.H.)

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