

Gebalon PC Ultimate G0 FR (y)

Designation according to ISO 1043 >PC (REC100) FR(40)<

(y) corresponds to four-digit colour code

UL Referenz E346354-20111114

Properties

Polycarbonate injection molding type, based on recyclate, easy to demold, halogen free, flame retardant.

Areas of application

Technical Injection Molded Parts.

Properties ¹⁾²⁾³⁾⁴⁾	Test condition	Unit	Standard	Value
Mechanical properties				
Charpy impact strength	23°C	kJ/m ²	ISO 179/1eU	no break
Charpy notched impact strength	23°C	kJ/m ²	ISO 179/1eA	10
Tensile modulus of elasticity	1 mm/min	MPa	ISO 527-1	2.200
Tensile stress at yield	50 mm/min	MPa	ISO 527-1	60
Tensile strain at yield	50 mm/min	%		6,2
Thermal properties				
Vicat softening temperature, VST	50 N, 50 K/h	°C	ISO 306 B50	141
Heat deflection temperature, HDT A	1.80 MPa	°C	ISO 75-2 A	124
Heat deflection temperature, HDT B	0.45 MPa	°C	ISO 75-2 B	136
Test specimen manufacturing operations				
Injection molding mass temperature	-	°C	ISO 294	290
Injection molding mold temperature	-	°C	ISO 294	110
Other properties				
Density	23°C	g/cm ³	ISO 1183-1 A	1,20
Burning behaviour ⁴⁾	1,5 mm	Class	UL 94	V0
Burning behaviour ⁴⁾	3,0 mm	Class	UL 94	V0
Glow-wire flammability index, GWFI	1,5 mm/960°C	-	IEC 60695-2-12	passed

¹⁾ Typical values for uncolored products. Deviations within normal tolerances are possible.

²⁾ Guideline values for material comparison - not the basis for component and tool design.

³⁾ The processing shrinkage depends on the process control and the component and tool design.

⁴⁾ Own measurement according to UL 94.

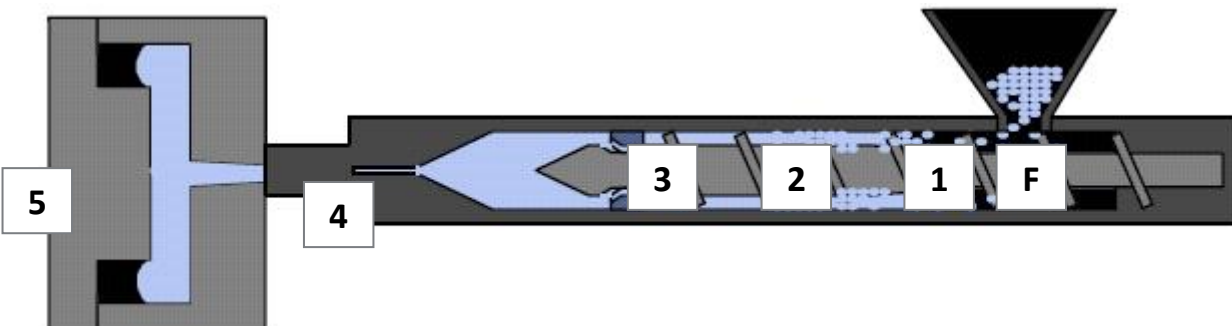
Processing recommendations

Drying conditions

Recommended drying temperatures and times	
Drying temperature (dry air dryer)	100 - 120°C
Drying	2 - 4 h
max. residual moisture	<0,02 %

For downtimes of 4 hours or more, we recommend lowering the temperature of the dryer by 40°C.

Processing temperatures



Melt temperature: 270 - 295°C					
5. Mold	4. Nozzle	3. Zone	2. Zone	1. Zone	Feeding Zone
80 - 120°C	290 - 295°C	290 - 295 °C	280 - 295°C	270 - 280°C	80 – 90°C

The values given are based on empirical values and are to be understood as guideline values.

Test values

Unless expressly stated otherwise, the stated values were determined on standardised test specimens at room temperature. The figures are to be regarded as indicative, but not as binding minimum values. Please note that the properties can be significantly influenced by the tool design, the processing conditions and the colouring processing.

Processing instructions

During processing, small amounts of fission products can be released under the recommended processing conditions. According to the safety data sheet, compliance with the specified occupational exposure limits must be ensured by adequate extraction and ventilation at the workplace so as not to impair the health and well-being of the machine operators. The prescribed processing temperatures must not be significantly exceeded in order to avoid greater partial decomposition of the polymer and cleavage of volatile decomposition products. Please note that all processing data given is for guidance only and may vary depending on individual processing units. Please contact your sales or technical representative for details.

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