

PRODUCT INFORMATION

**TAROLON 3011**

Polycarbonate medium high viscosity, transparent grade, high mechanical properties.

**ISO short Form** ISO 1043: PC Pellets

**Key Features**

- Transparent
- Designed for injection moulding applications
- Good flowability

**Availability**

- W: lubricated
- L: UV stabilized
- All transparent colours

**Process**

- INJECTION MOULDING

**Application**

- General purpose applications

Property	Method	Unit	Value	Condition	State
<b>ELECTRICAL</b>					
Volume Resistivity	IEC 60093	Ohm cm	>10E15		
Dielectric Strength	IEC 60243-1	kV/mm	20	2 mm	
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	225		
<b>PHYSICAL</b>					
Density (+23°C)	ISO 1183	g/cm <sup>3</sup>	1,20		
Water Absorption (24h / +23°C)	ISO 62	%	0,12		
Water Absorption at Saturation	ISO 62	%	0,35		
Mould Shrinkage (Parallel)	Internal method	%	0,5 - 0,7		
Mould Shrinkage (Normal)	Internal method	%	0,5 - 0,7		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	10	300°C - 1,2 kg	
<b>MECHANICAL</b>					
Tensile Modulus	ISO 527-1,2	MPa	2300	Speed 1 mm/min	
Tensile Yield Strength	ISO 527-1,2	MPa	70	Speed 50 mm/min	
Elongation at Break	ISO 527-1,2	%	100	Speed 50 mm/min	

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Flexural Modulus	ISO 178	MPa	2500	Speed 1 mm/min
Flexural Max Strength	ISO 178	MPa	88	Speed 1 mm/min
IZOD Notched Impact (+23°C)	ISO 180/1A	kJ/m <sup>2</sup>	35	
IZOD Notched Impact (+23°C)	ASTM D256	J/m	750	
IZOD Notched Impact (-25°C)	ASTM D256	J/m	14	

**THERMAL**

Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	152	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	140	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	135	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K <sup>-1</sup>	7x10E(-5)	-30°C /+30°C

**FLAMMABILITY**

Flame Behaviour (0,75 mm)	UL94	Class	V2	
Flame Behaviour (1,6 mm)	UL94	Class	V2	
Glow Wire Flammability Index-GWFI (0,75 mm)	IEC 60695-2-12	°C	850	
Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	850	
Oxygen index	ASTM D2863	%	26	

**INJECTION MOULDING**

	Value
Drying Temperature (Desiccant Dryer)	120°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	< 0,02 %
Suggested Max Regrind	< 15%
Melt Temperature	270 - 300°C
Feed Temperature	60 - 80°C
Rear Temperature	260 - 280°C
Middle Temperature	270 - 290°C
Front Temperature	280 - 295°C
Nozzle Temperature	285 - 300°C
Mould Temperature	80 - 120°C
Injection Rate	Medium to Fast



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Screw Revolving Speed	50 - 150 rpm
Cushion	3 - 5 mm
Vent Depth	0,05 mm

**Notes** During processing, a dehumidifying hopper dryer is recommended at a temperature of 60 to 80°C. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry and design.