

Product Information

PA12

Physical Form And Storage

By selecting a specific monomer, a microcrystalline transparent polyamide is obtained: PA12 of RODNEY® its crystal is very small and does not scatter visible light, so the material is transparent — which is called microcrystallization. Since it still retains crystallinity, it also retains important properties of microcrystalline structures, such as resisting stress cracking and having no microcracks. However, crystallinity is so negligible that it has no adverse effect on the contractility of injection molding components. RODNEY®'s PA12 experienced a similar isotropic contraction, comparable to amorphous materials. The combination of good UV resistance, high mechanical strength, permanent transparency, high transmission and high chemical resistance opens wide applications for RODNEY® PA12.

RODNEY ® PA12: Low viscosity, permanently transparent polyamide for injection molding.

Typical applications: the automotive industry, machinery and engineering, medical technology, sports and entertainment industry, glasses production, cosmetics industry, and water treatment and filtration technology.

Note

The attributes mentioned here are all based on limited test data. Shengwen does not indicate that any particular shipped material fully complies with the above values.

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DONGGUAN SHENGWEN PLASTIC TRADING CO.,LTD.

PA12 Technical Data Sheet

Typical values for uncolored product at 23°C	Test Method	Unit	Typical Values	
			SAM639	TN-90
Mechanical Properties				
Tensile Strength	ISO 527-1/-2	MPa	70	65
Tensile Modulus	ISO 527-1/-2	MPa	1600	1500
Flexural Modulus	ISO 178	MPa	1700	1600
Charpy impact strength - 30°C, break	ISO 179/1eA	kJ/m ²	8	10
Thermal Properties				
HDT/A @0.45MPa Heat Deflection Temperature	ISO 75-2/B	°C	125	135
Tg, DSC, 10 K/min Glass Transition Temperature	ISO 11357-1/-2	°C	130	140
@23°C, CLTE - Flow	ISO11359-1/-2	E-5cm/cm/°C	9	9
Flammability				
Flame Rating @ 0.8mm thickness	UL94	Class	HB	HB
Flame Rating @ 1.6mm thickness	UL94	Class	HB	HB
Electrical Properties				
100V volume Resistivity	IEC 60093	Ω · m	1.0E+14ohms	1.0E+14ohms
100V Surface Resistivity		Ω	1.0E+15ohms	1.0E+15ohms
Relative Permittivity 23°C, 100HZ	IEC 60250	/	3.40	3.4
CTI	IEC 60112	/	575V	575
General Properties and Processability				
Density	ISO1183	g/cm ³	1.03	1.02
Viscosity	ISO307	/	>1g/10min	>1g/10min

Notes:

Typical values: These are not to be construed as specifications.



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