

Product Texts

Orgalloy® RS 6030 NAT resin is a fiberglass reinforced polyamide 6 alloy designed for injection molding. This natural grade offers an outstanding dimensional stability, chemical resistance to automotive fluids and is ideal for the realization of complex parts.

Main applications:

- Electric connectors
- Sport parts

Packaging:

This grade is delivered dried in sealed packaging (25kg bags) ready to be processed.

Shelf life:

Two years from the date of delivery. For any use above this limit, please refer to our technical services.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	2.5 / *	cm ³ /10min	ISO 1133
Temperature	235 / *	°C	-
Load	2.16 / *	kg	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	8600 / 8000	MPa	ISO 527
^[C] Stress at break	139 / 126	MPa	ISO 527
^[C] Strain at break	2.8 / 3	%	ISO 527
^[C] Tensile creep modulus, 1h	* / 5750	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	* / 4050	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	59 / 60	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	57 / 58	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	15 / 16	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	10 / 11	kJ/m ²	ISO 179/1eA
^[C] Shore D hardness	78 / *	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	220 / *	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	190 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	215 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	185 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	19 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	126 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	-
^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	3.2 / *	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	- / 3	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	- / 4	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	- / 640	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	- / 230	E-4	IEC 62631-2-1
^[C] Volume resistivity	- / >1E13	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / >1E15	Ohm	IEC 62631-3-2
^[C] Electric strength	34 / 34	kV/mm	IEC 60243-1

[C] Comparative tracking index * / 600 - IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	4.7 / *	%	Sim. to ISO 62
[C] Humidity absorption	1.6 / *	%	Sim. to ISO 62
[C] Density	1250 / 1250	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	4 - 8	h	-
Melt temperature	260 - 280	°C	-
Mold temperature	60 - 80	°C	-

Characteristics

Processing

Injection Molding

Delivery form

Pellets, Natural Color

Special Characteristics

Light stabilized or stable to light, U.V. stabilized or stable to weather, Heat stabilized or stable to heat

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Injection molding

Processing conditions:

- Drying time (only necessary for bags opened for more than two hours): 4-8 hours at 80°C
- Injection temperature (min-recommended-max): 260-270-280°C
- Mould temperature (min-max): 60-80°C