

Orgalloy® RS 6010

Polyamide 6 Alloy

Arkema

Message:

Orgalloy® RS 6010 is a Polyamide 6 Alloy (Nylon 6 Alloy) product filled with filler. It can be processed by extrusion, injection molding, profile extrusion, or resin transfer molding and is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America. Primary characteristic: heat resistant.

General Information				
Filler / Reinforcement	Filler			
Features	High Heat Resistance			
	Platable			
Forms	Pellets			
Processing Method	Extrusion			
	Injection Molding			
	Profile Extrusion			
	Resin Transfer Molding			
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)			
	Secant Modulus vs. Strain (ISO 11403-1)			
	Shear Modulus vs. Temperature (ISO 11403-1)			
	Specific Volume vs Temperature (ISO 11403-2)			
	Viscosity vs. Shear Rate (ISO 11403-2)			
Physical	Dry	Conditioned	Unit	Test Method
Density	1120	1120	kg/m ³	ISO 1183 ¹
Melt volume-flow rate (235°C/2.16 kg)	6.00	--	cm ³ /10min	ISO 1133 ²
Water Absorption				ISO 62 ³
Saturation	3.0	--	%	
Equilibrium	1.2	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile modulus	--	3300	MPa	ISO 527-2 ⁴
Tensile Stress (Break)	--	80.0	MPa	ISO 527-2 ⁵
Tensile Strain (Break)	--	5.0	%	ISO 527-2 ⁶
Tensile Creep Modulus				ISO 899-1 ⁷
1 hr	--	2530	MPa	
1000 hr	--	1790	MPa	
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2 ⁸

0.45 MPa	210	--	°C	
1.8 MPa	190	--	°C	
Melting Temperature ⁹	220	--	°C	ISO 11357-3 ¹⁰
Electrical	Dry	Conditioned	Unit	Test Method
Surface resistivity	--	> 1.0E+15	ohms	IEC 60093 ¹¹
Volume resistivity	--	> 1.0E+13	ohms·m	IEC 60093 ¹²
Electric strength	36	36	kV/mm	IEC 60243-1 ¹³
Relative Permittivity				IEC 60250 ¹⁴
100 Hz	--	3.00		
1 MHz	--	3.00		
Dissipation Factor				IEC 60250 ¹⁵
100 Hz	--	0.063		
1 MHz	--	0.024		
Comparative tracking index	--	600		IEC 60112 ¹⁶
Flammability	Dry	Conditioned	Unit	Test Method
Burning Behav. at 1.6mm nom. thickn. (1.60 mm)	HB	--		ISO 1210 ¹⁷
Burning Behav. at thickness h (3.20 mm)	HB	--		ISO 1210 ¹⁸
NOTE				
1.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.			
2.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.			
3.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.			
4.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.			
5.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.			
6.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.			
7.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.			
8.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.			
9.	10 °C/min			
10.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.			

11.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
12.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
13.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
14.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
15.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
16.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
17.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
18.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

