

Orgalloy® RS 6030

Polyamide 6 Alloy

Arkema

Message:

Orgalloy® RS 6030 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)		
		Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1250	1250	kg/m ³	ISO 1183 ¹
Melt volume-flow rate (235°C/2.16 kg)	5.00	--	cm ³ /10min	ISO 1133 ²
Water Absorption				ISO 62 ³
Saturation	2.3	--	%	
Equilibrium	0.90	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile modulus	--	7500	MPa	ISO 527-2 ⁴
Tensile Stress (Break)	--	130	MPa	ISO 527-2 ⁵
Tensile Strain (Break)	--	4.0	%	ISO 527-2 ⁶
Tensile Creep Modulus				ISO 899-1 ⁷
1 hr	--	5750	MPa	
1000 hr	--	4050	MPa	
Impact	Dry	Conditioned	Unit	Test Method
Charpy notched impact strength (23°C)	--	6.00	kJ/m ²	ISO 179/1eA ⁸
Thermal	Dry	Conditioned	Unit	Test Method

Deflection Temperature Under Load				ISO 75-2 ⁹
0.45 MPa	210	--	°C	
1.8 MPa	190	--	°C	
Vicat Softening Temperature (50°C/h, B (50N))	183	--	°C	ISO 306 ¹⁰
Melting Temperature ¹¹	220	--	°C	ISO 11357-3 ¹²
CLTE				ISO 11359-2 ¹³
Flow	1.9E-5	--	cm/cm/°C	
Transverse	1.3E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface resistivity	--	> 1.0E+15	ohms	IEC 60093 ¹⁴
Volume resistivity	--	> 1.0E+13	ohms·m	IEC 60093 ¹⁵
Electric strength	34	34	kV/mm	IEC 60243-1 ¹⁶
Relative Permittivity				IEC 60250 ¹⁷
100 Hz	--	3.00		
1 MHz	--	4.00		
Dissipation Factor				IEC 60250 ¹⁸
100 Hz	--	0.064		
1 MHz	--	0.023		
Comparative tracking index	--	600		IEC 60112 ¹⁹
Flammability	Dry	Conditioned	Unit	Test Method
Burning Behav. at 1.6mm nom. thickn. (1.60 mm, UL)	HB	--		ISO 1210 ²⁰
Burning Behav. at thickness h (3.20 mm, UL)	HB	--		ISO 1210 ²¹
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.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
10.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
11.	10 °C/min
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.
19.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
20.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
21.	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

