

ORGALLOY® RS 6030 NAT

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 CHARACTERISTICS

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	2 / *	cm ³ /10min	ISO 1133
Temperature	235 / *	°C	-
Load	2.16 / *	kg	-
Molding Shrinkage, parallel	0.2 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	0.5 / *	%	ISO 294-4, 2577
MECHANICAL PROPERTIES			
Tensile Modulus	8900 / 8300	MPa	ISO 527-1/-2
Stress at Break	140 / 130	MPa	ISO 527-1/-2
Strain at Break	3 / 3	%	ISO 527-1/-2
Shore D Hardness, 15s	78 / *	-	ISO 7619-1
Tensile Creep Modulus, 1h	* / 5750	MPa	ISO 899-1
Tensile Creep Modulus, 1000h	* / 4050	MPa	ISO 899-1
Charpy Impact Strength, +23°C	- / No Break	kJ/m ²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	16 / 17	kJ/m ²	ISO 179/1eA
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	220 / *	°C	ISO 11357-1/-3
Temp. of Deflection Under Load, 1.80 MPa	190 / *	°C	ISO 75-1/-2
Temp. of Deflection Under Load, 0.45 MPa	210 / *	°C	ISO 75-1/-2
Vicat Softening Temperature, 50°C/h 50N	185 / *	°C	ISO 306
Coeff. of Linear Thermal Expansion, parallel	19 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Thermal Expansion, normal	126 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nominal Thickness	HB / *	class	IEC 60695-11-10
Thickness Tested	1.6 / *	mm	-
Yellow Card available	yes / *	-	-
Burning Behav. at Thickness h	HB / *	class	IEC 60695-11-10
Thickness Tested	3.2 / *	mm	-
Yellow Card available	yes / *	-	-
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	- / 3	-	IEC 60250
Relative Permittivity, 1MHz	- / 4	-	IEC 60250
Dissipation Factor, 100Hz	- / 640	E-4	IEC 60250
Dissipation Factor, 1MHz	- / 230	E-4	IEC 60250

Arkema France - A French "société anonyme", registered in the Nanterre (France) Trade and Companies Register under the number 319 632 790 SBC/11-2018

Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/en/products/product-safety/disclaimer/index.html>

ORGALLOY®
BY **ARKEMA**

ORGALLOY® RS 6030 NAT

Volume Resistivity	- / > 1E13	Ohm*m	IEC 60093
Surface Resistivity	* / > 1E15	Ohm	IEC 60093
Dielectric (Electric) Strength	34 / 34	kV/mm	IEC 60243-1
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption	2.3 / *	%	Sim. to ISO 62
Humidity Absorption	1 / *	%	Sim. to ISO 62
Density	1250 / 1250	kg/m³	ISO 1183

MAIN APPLICATIONS: • Electric connectors • Sport parts

PACKAGING:

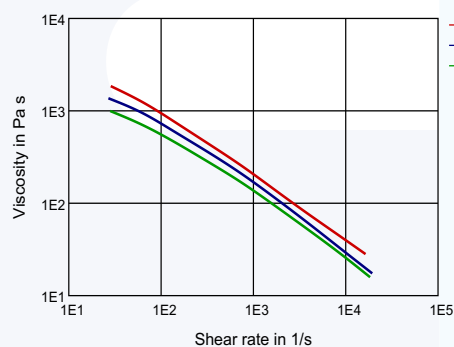
This grade is delivered dried in sealed packaging (25kg bags) ready to be processed.

SHELF LIFE:

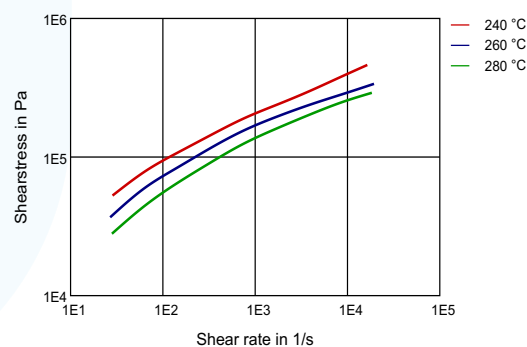
Two years from the date of delivery. For any use above this limit, please refer to our technical services.

DIAGRAMS

VISCOSITY-SHEAR RATE



SHEARSTRESS-SHEAR RATE



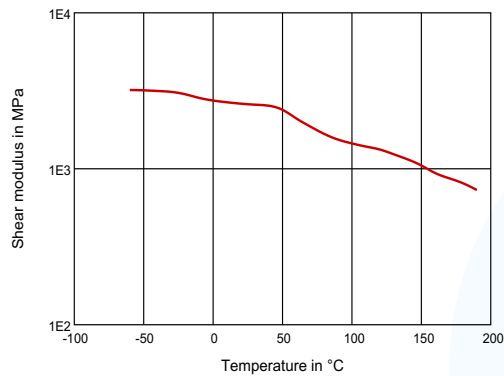
Arkema France - A French "société anonyme", registered in the Nanterre (France) Trade and Companies Register under the number 319 632 790 SBC/11-2018

Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/en/products/product-safety/disclaimer/index.html>

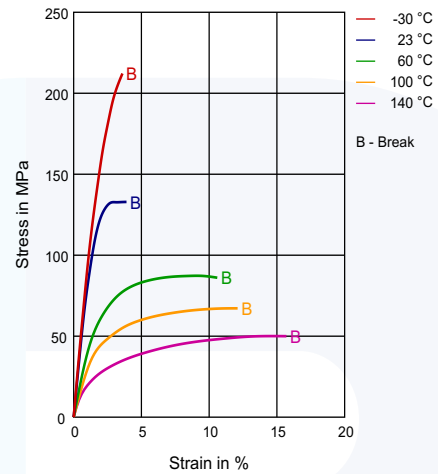
ORGALLOY®
BY ARKEMA

ORGALLOY® RS 6030 NAT

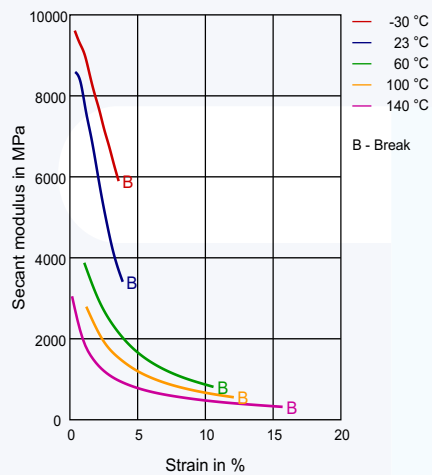
DYNAMIC SHEAR MODULUS-TEMPERATURE



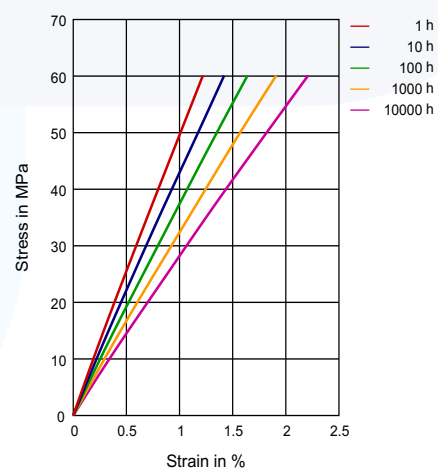
STRESS-STRAIN



SECANT MODULUS-STRAIN



STRESS-STRAIN (ISOCRONOUS) 23°C



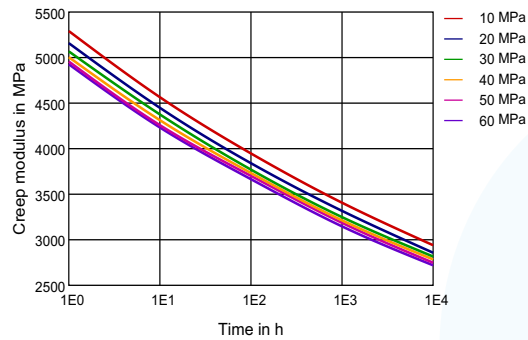
Arkema France - A French "société anonyme", registered in the Nanterre (France) Trade and Companies Register under the number 319 632 790
SDC/11-2018

Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/en/products/product-safety/disclaimer/index.html>

ORGALLOY®
BY **ARKEMA**

ORGALLOY® RS 6030 NAT

CREEP MODULUS-TIME 23°C



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

PROCESSING

Injection Molding

DELIVERY FORM

Pellets

SPECIAL CHARACTERISTICS

Heat Stabilized, Light Stabilized

REGIONAL AVAILABILITY

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

Arkema France - A French "société anonyme" registered in the Nanterre (France) Trade and Companies Register under the number 319 632 790 S00711-2018

Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/en/products/product-safety/disclaimer/index.html>

Orgalloy® is a registered trademark of Arkema
© 2022 Arkema Inc. All rights reserved.

orgalloy.com

ORGALLOY®
BY **ARKEMA**

Arkema Inc. – Technical Polymers
900 First Avenue
King of Prussia, PA 19406
Tel.: +1 610 205 7000
Fax: +1 610 205 7497
arkema-america.com

Headquarters: Arkema France
420, rue d'Estienne d'Orves
92705 Colombes Cedex – France
Tel.: +33 1 49 00 80 80
Fax: +33 1 49 00 83 96
arkema.com