

PEBAX®

7033 SP 01

Polyether block amide **Pebax® 7033 SP 01 resin** is a thermoplastic elastomer made of flexible polyether and rigid polyamide. This SP grade has been developed to be heat and UV resistant.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Molding Shrinkage, parallel	1.2 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	1.5 / *	%	ISO 294-4, 2577
MECHANICAL PROPERTIES			
Tensile Modulus	414 / 390	MPa	ISO 527-1/-2
	60000 / 56600	psi	
Yield stress	23 / 22	MPa	ISO 527-1/-2
	3340 / 3190	psi	
Yield strain	22 / 20	%	ISO 527-1/-2
Nominal Strain at Break	>50 / >50	%	ISO 527-1/-2
Stress at 10% Elongation	22 / *	MPa	ISO 527-1/-2
	3190 / *	psi	
Stress at 100% Elongation	21 / *	MPa	ISO 527-1/-2
	3050 / *	psi	
Strain at Break TPE	>300 / *	%	ISO 527-1/-2
Stress at Break TPE	54 / *	MPa	ISO 527-1/-2
	7830 / *	psi	
Tear Strength	149 / *	kN/m	ISO 34-1
Shore D Hardness	61 / *	-	ISO 868
Charpy Impact Strength, +23°C	No Break / No Break	kJ/m²	ISO 179/1eU
Charpy Impact Strength, -30°C	No Break / No Break	kJ/m²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	No Break / 120	kJ/m²	ISO 179/1eA
	No Break / 57.1	ftlb/in²	
Charpy Notched Impact Strength, -30°C	- / 20	kJ/m²	ISO 179/1eA
	- / 9.51	ftlb/in²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	172 / *	°C	ISO 11357-1/-3
Temp. of Deflection Under Load, 0.45 MPa	99 / *	°C	ISO 75-1/-2
	210 / *	°F	
Vicat Softening Temperature, 50°C/h 50N	106 / *	°C	ISO 306
	223 / *	°F	

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Coeff. of Linear Thermal Expansion, parallel	160 / *	E-6/K	ISO 11359-1/-2
ELECTRICAL PROPERTIES			
Surface Resistivity	* / 4E13	Ohm	IEC 60093
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption	1.1 / *	%	Sim. to ISO 62
Humidity Absorption	0.7 / *	%	Sim. to ISO 62
Density	1010 / 1010	kg/m ³	ISO 1183
	1.01 / 1.01	g/cm ³	
Spec. heat capacity of melt	2700	J/(kg K)	-
Thermal conductivity of melt	0.2	W/(m K)	-
Density of melt	830	kg/m ³	-
	51.8	lb/ft ³	

MAIN APPLICATIONS:

- Athletic foot wear components
- Zip fasteners
- Ski shoes
- Tennis racket bumpers

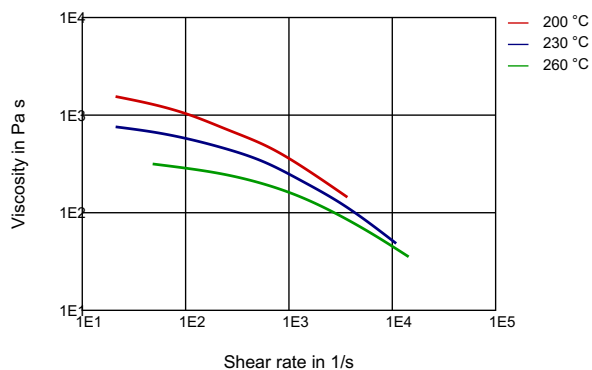
PACKAGING:

This grade is delivered dried in sealed packaging (20 or 25 kg bags) ready to be processed.

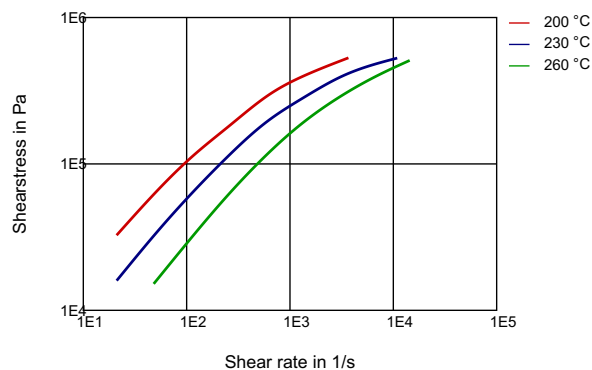
PEBAX® 7033 SP 01

DIAGRAMS

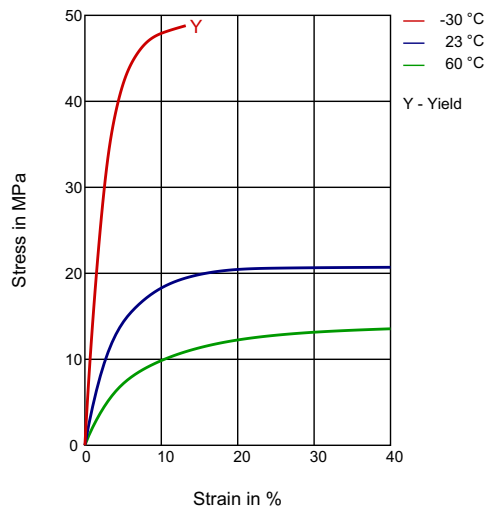
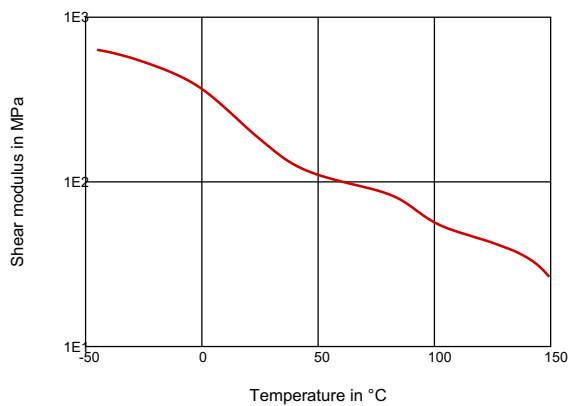
VISCOSITY-SHEAR RATE



SHEARSTRESS-SHEAR RATE

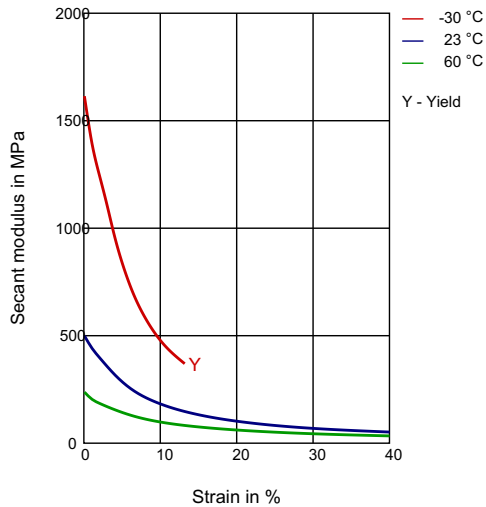


DYNAMIC SHEAR MODULUS-TEMPERATURE & STRESS-STRAIN

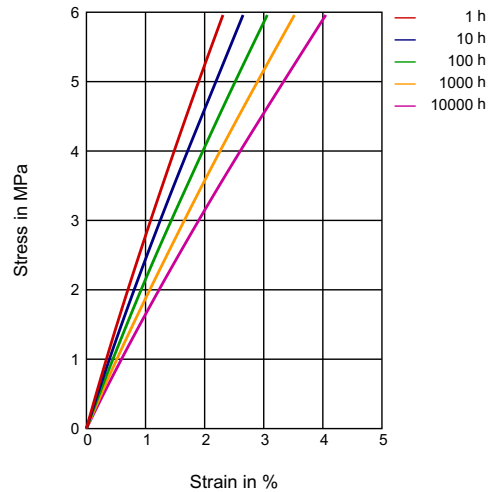


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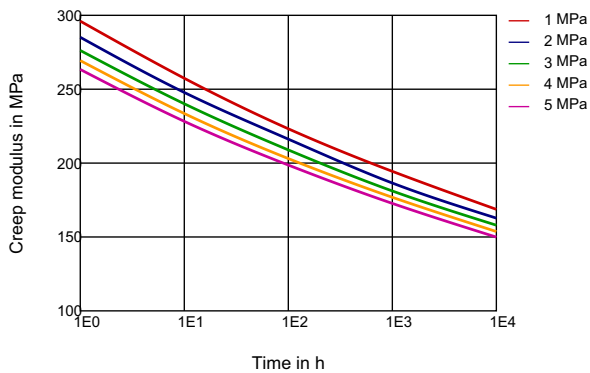
SECANT MODULUS-STRAIN



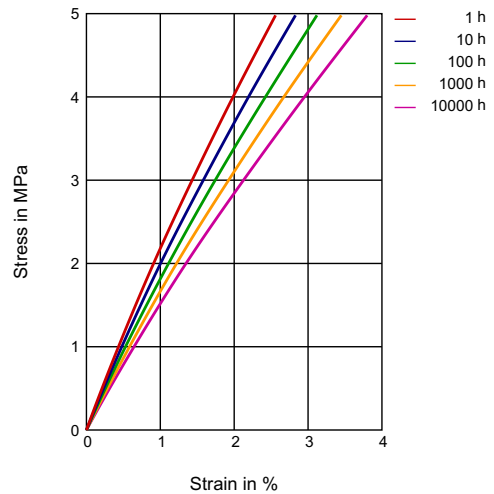
STRESS-STRAIN (ISOCHRONOUS) 73°F



CREEP MODULUS-TIME 73°F

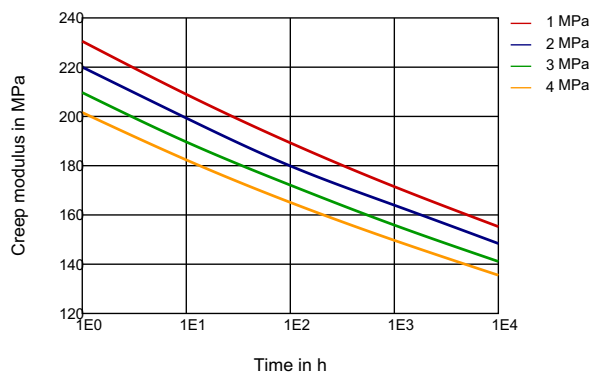


STRESS-STRAIN (ISOCHRONOUS) 104°F

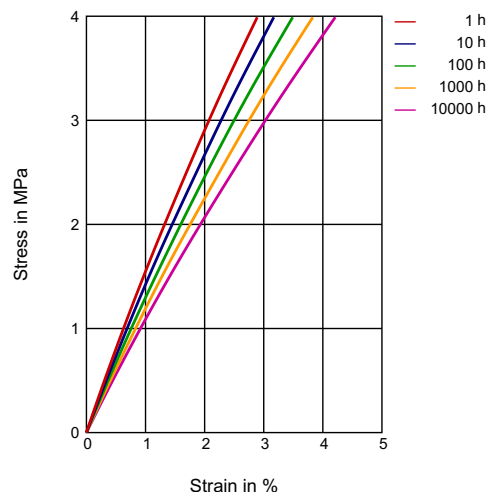


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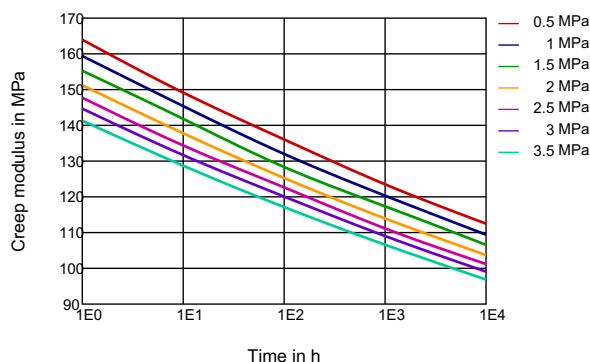
CREEP MODULUS-TIME 104°F



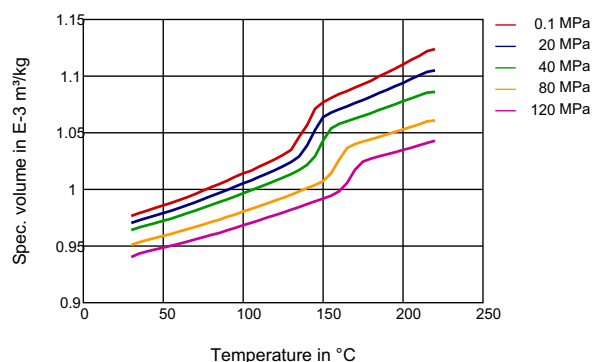
STRESS-STRAIN (ISOCRONOUS) 176°F



CREEP MODULUS-TIME 176°F



SPECIFIC VOLUME-TEMPERATURE (PVT)



Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 230°C / 260°C / 290°C
- Typical mold temperature : 25 – 60°C
- Drying time and temperature (only necessary for bags opened for more than two hours) : 5-7 hours at 70-80°C

Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 220°C / 235°C / 250°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 5-7 hours at 70-80°C.

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PROCESSING Injection Molding, Film Extrusion, Profile Extrusion, Other Extrusion, Transfer Molding, Casting, Thermoforming	
DELIVERY FORM Pellets	
SPECIAL CHARACTERISTICS Heat Stabilized, Light Stabilized	
REGIONAL AVAILABILITY North America, Europe, Asia Pacific, South and Central America, Near East/Africa	