

PEBAX®

2533 SD 02

Polyether block amide **Pebax® 2533 SD 02 resin** is a thermoplastic elastomer made of flexible polyether and rigid polyamide. This SD grade is heat and UV stabilized and contains mould release additive.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Molding Shrinkage, parallel	0.5 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	0.8 / *	%	ISO 294-4, 2577
MECHANICAL PROPERTIES			
Tensile Modulus	12 / 10	MPa	ISO 527-1/-2
	1740 / 1450	psi	
Stress at 50% Strain	3 / 3	MPa	ISO 527-1/-2
	435 / 435	psi	
Strain at Break	>50 / >50	%	ISO 527-1/-2
Stress at 10% Elongation	1 / *	MPa	ISO 527-1/-2
	145 / *	psi	
Stress at 100% Elongation	4 / *	MPa	ISO 527-1/-2
	580 / *	psi	
Strain at Break TPE	>300 / *	%	ISO 527-1/-2
Stress at Break TPE	32 / *	MPa	ISO 527-1/-2
	4640 / *	psi	
Compression Set at 23 °C, 24h	19 / *	%	ISO 815
Tear Strength	44 / *	kN/m	ISO 34-1
Abrasion Resistance	130 / *	mm ³	ISO 4649
Shore A Hardness	77 / *	-	ISO 868
Shore D Hardness	22 / *	-	ISO 868
Charpy Impact Strength, +23°C	No Break / No Break	kJ/m ²	ISO 179/1eU
Charpy Impact Strength, -30°C	No Break / No Break	kJ/m ²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	No Break / No Break	kJ/m ²	ISO 179/1eA
Charpy Notched Impact Strength, -30°C	No Break / No Break	kJ/m ²	ISO 179/1eA
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	134 / *	°C	ISO 11357-1/-3
Glass Transition Temperature, 10°C/min	-65 / *	°C	ISO 11357-1/-2
	-85 / *	°F	
Temp. of Deflection Under Load, 0.45 MPa	42 / *	°C	ISO 75-1/-2
	108 / *	°F	

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Coeff. of Linear Thermal Expansion, parallel	200 / *	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	-
	0.0630 / *	in	
Yellow Card available	yes / *	-	-
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	6 / -	-	IEC 60250
Relative Permittivity, 1MHz	6 / -	-	IEC 60250
Dissipation Factor, 100Hz	552 / -	E-4	IEC 60250
Dissipation Factor, 1MHz	378 / -	E-4	IEC 60250
Volume Resistivity	1.3E10 / -	Ohm*m	IEC 60093
Surface Resistivity	* / 3E12	Ohm	IEC 60093
Dielectric (Electric) Strength	36 / -	kV/mm	IEC 60243-1
	914 / -	kV/in	
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption	1.2 / *	%	Sim. to ISO 62
Humidity Absorption	0.4 / *	%	Sim. to ISO 62
Density	1000 / 1000	kg/m ³	ISO 1183
	1 / 1	g/cm ³	
Spec. heat capacity of melt	2800	J/(kg K)	-
Thermal conductivity of melt	0.18	W/(m K)	-
Density of melt	830	kg/m ³	-
	51.8	lb/ft ³	

MAIN APPLICATIONS: • Flexible injected parts • Silent gears

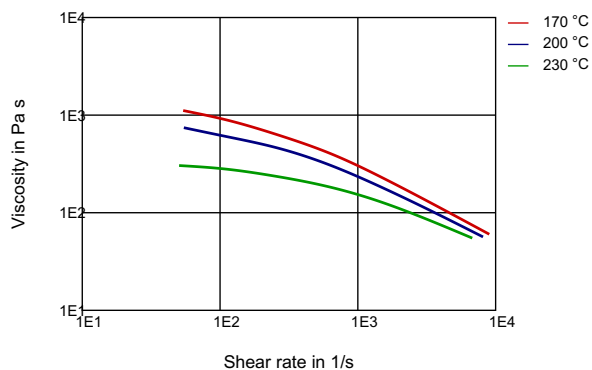
PACKAGING:

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

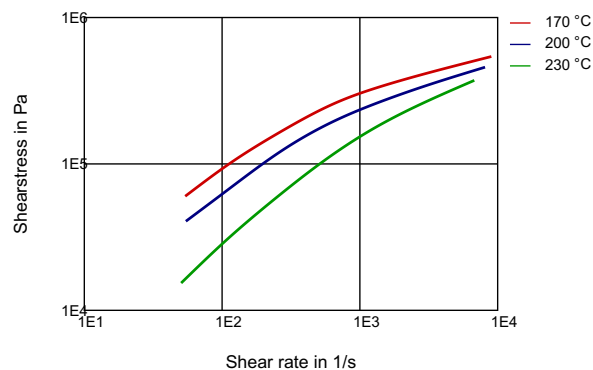
PEBAX® 2533 SD 02

DIAGRAMS

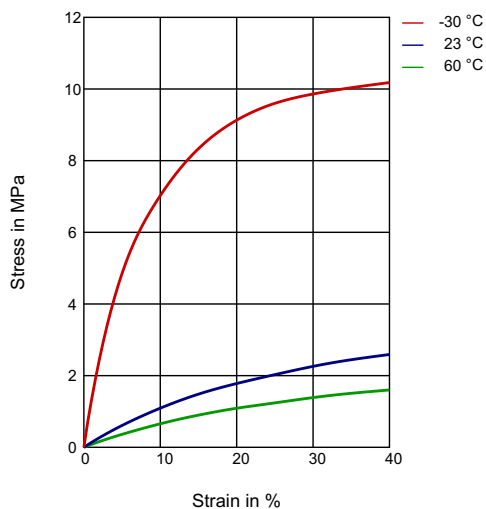
VISCOSITY-SHEAR RATE



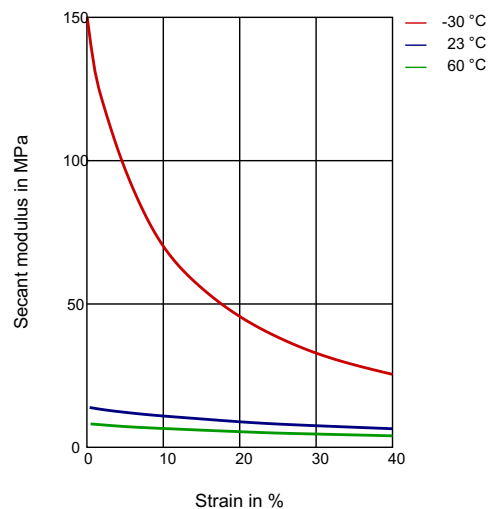
SHEARSTRESS-SHEAR RATE



STRESS-STRAIN

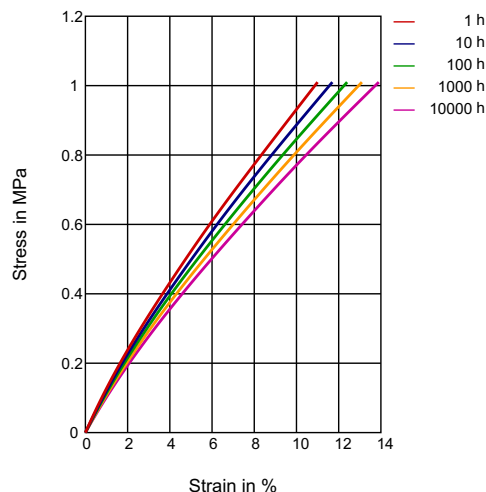


SECANT MODULUS-STRAIN

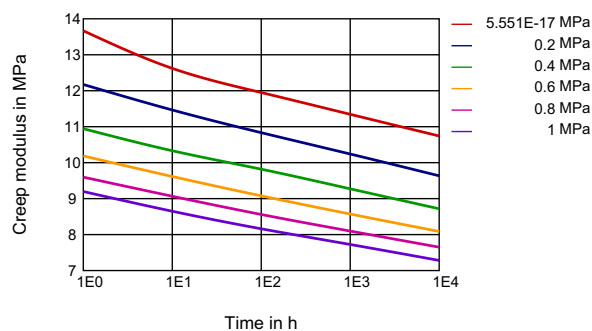


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STRESS-STRAIN (ISOCHRONOUS) 73°F



CREEP MODULUS-TIME 73°F



Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 180°C / 210°C / 240°C.
- Typical mold temperature : 10 – 30°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-8 hours at 55-65°C.

PROCESSING

Injection Molding, Film Extrusion, Profile Extrusion, Other Extrusion, Transfer Molding, Casting, Thermoforming

DELIVERY FORM

Pellets

ADDITIVES

Lubricants, Antiblocking agent

SPECIAL CHARACTERISTICS

Heat Stabilized, Light Stabilized

REGIONAL AVAILABILITY

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