

PEBAX® 3533 SP 01

Polyether block amide **Pebax® 3533 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.

MAIN CHARACTERISTICS

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	19 / 18	MPa	ISO 527-1/-2
Stress at 50% Strain	4 / 4	MPa	ISO 527-1/-2
Strain at Break	> 50 / > 50	%	ISO 527-1/-2
Stress at 10% Elongation	2 / *	MPa	ISO 527-1/-2
Stress at 100% Elongation	6 / *	MPa	ISO 527-1/-2
Strain at Break TPE	> 300 / *	%	ISO 527-1/-2
Stress at Break TPE	39 / *	MPa	ISO 527-1/-2
Compression Set at 23 °C, 24h	22 / *	%	ISO 815
Tear Strength	50 / *	kN/m	ISO 34-1
Abrasion Resistance	64 / *	mm ³	ISO 4649
Shore A Hardness, 3s	82 / *	-	ISO 7619-1
Shore D Hardness, 15s	25 / *	-	ISO 7619-1
Charpy Impact Strength, +23°C	- / No Break	kJ/m ²	ISO 179/1eU
Charpy Impact Strength, -30°C	- / No Break	kJ/m ²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	- / No Break	kJ/m ²	ISO 179/1eA
Charpy Notched Impact Strength, -30°C	- / No Break	kJ/m ²	ISO 179/1eA
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	144 / *	°C	ISO 11357-1/-3
Glass Transition Temperature, 10°C/min	-65 / *	°C	ISO 11357-1/-2
Temp. of Deflection Under Load, 0.45 MPa	46 / *	°C	ISO 75-1/-2
Vicat Softening Temperature, 50°C/h 50N	77 / *	°C	ISO 306
Coeff. of Linear Thermal Expansion, parallel	210 / *	E-6/K	ISO 11359-1/-2
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	6 / -	-	IEC 60250
Relative Permittivity, 1MHz	6 / -	-	IEC 60250
Dissipation Factor, 100Hz	310 / -	E-4	IEC 60250
Dissipation Factor, 1MHz	434 / -	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>

PEBAX®
BY ARKEMA

PEBAX® 3533 SP 01

Volume Resistivity	3.2E10 / -	Ohm*m	IEC 60093
Surface Resistivity	* / 3E12	Ohm	IEC 60093
Dielectric (Electric) Strength	33.5 / -	kV/mm	IEC 60243-1
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/m³	ISO 1183
Spec. heat capacity of melt	2800	J/(kg K)	-
Thermal conductivity of melt	0.18	W/(m K)	-
Density of melt	830	kg/m³	-

MAIN APPLICATIONS:

- Flexible injected parts
- Toy component
- High performance power trasmission belts
- Silent gears

PACKAGING:

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

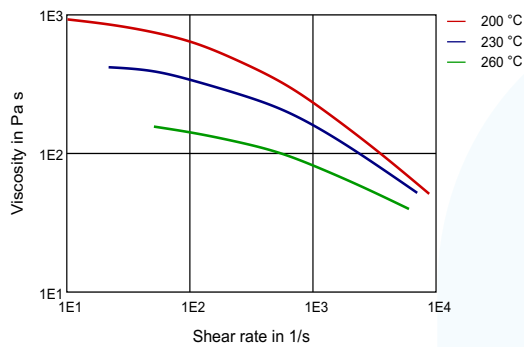
SHELF LIFE:

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

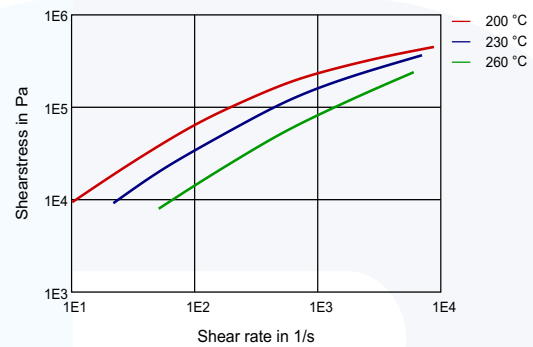
PEBAX® 3533 SP 01

DIAGRAMS

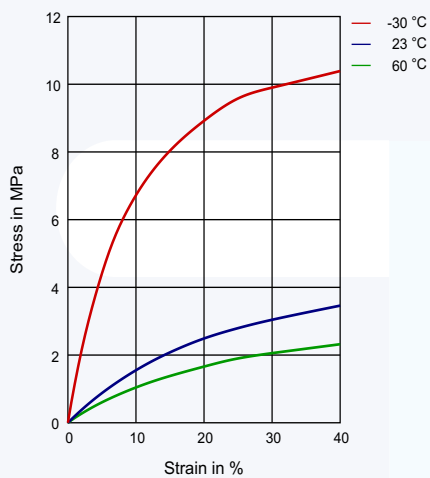
VISCOSITY-SHEAR RATE



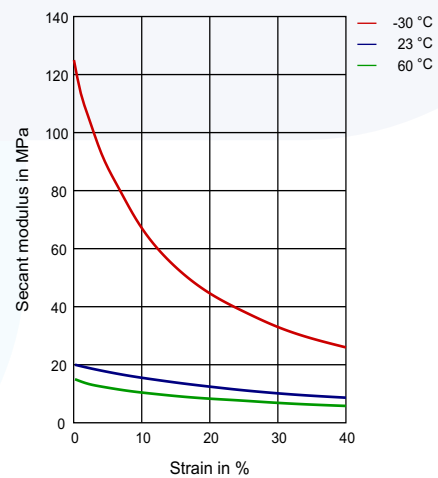
SHEARSTRESS-SHEAR RATE



STRESS-STRAIN

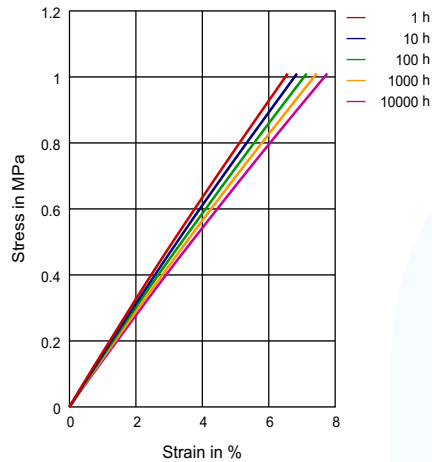


SECANT MODULUS-STRAIN

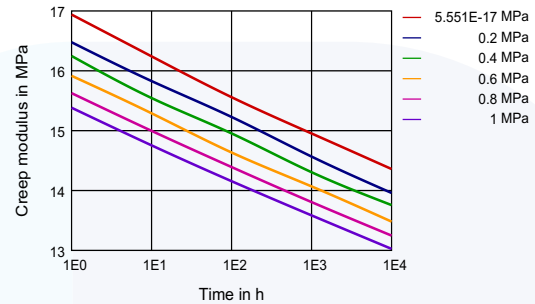


PEBAX® 3533 SP 01

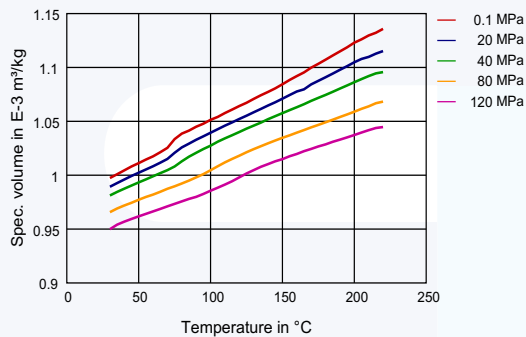
STRESS-STRAIN (ISOCHRONOUS) 23°C



CREEP MODULUS-TIME 23°C



SPECIFIC VOLUME-TEMPERATURE (PVT)



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 conditions:

- Typical melt temperature (Min / Recommended / Max) : 190°C / 205°C / 220°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

SPECIAL CHARACTERISTICS

Heat Stabilized, Light Stabilized

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

PEBAX®
BY **ARKEMA**

PEBAX® 3533 SP 01

Extrusion, Transfer Molding, Casting, Thermoforming

DELIVERY FORM

Pellets

ADDITIVES

Lubricants, Antiblocking agent

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
SIC/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>

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

pebax.com

Arkema Inc. – Technical Polymers

900 First Avenue
King of Prussia, PA 19406
Tel.: +1 610 205 7000
Fax: +1 610 205 7497
arkema-americas.com

PEBAX®
BY ARKEMA

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