

TECHNICAL DATA SHEET

PEBAX® 6333 SP 01

POLYETHER BLOCK AMIDE PELLETT

PEBAX® 6333 SP 01 is a polyether block amide, a thermoplastic elastomer made of flexible polyether and rigid polyamide. This SP grade is heat & UV stabilized. It is used in sport and consumer applications.

DESIGNATION

PEBA

MAIN APPLICATIONS

- Winter Sports - Ski Boots
- Footwear - Outsole/Components

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Film Extrusion
- Injection Molding
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Shrinkage, Parallel (t+24h)	1.1 %	ISO 294-4
Shrinkage, Normal (t+24h)	1.2 %	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Compression set	47 / - %	ISO 815
Hardness, Shore D, 15 s	- / 58	ISO 868
Charpy unnotched impact strength, 23°C (73°F)	No Break / No Break	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	No Break / No Break	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	No Break / No Break	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 20 kJ/m ²	ISO 179 1eA
Tensile modulus, 23°C (73°F), 1 mm/min	307 / 240 MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	22 / 22 %	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	19 / 18 MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	> 350 / > 350 %	ISO 527-1/-2
Abrasion resistance	55 / - mm ³	ISO 4649
Flexural modulus, 23°C (73°F)	- / 285 MPa	ISO 178
Stress at break, 23°C (73°F), 50 mm/min	- / 53 MPa	ISO 527-1/-2

*DRY: Dry As Molded (DAM) if pellet / Dry if powder.
COND: Conditioned.

PEBAX® 6333 SP 01

THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Vicat softening temperature, 50N at 50°C/h	85 °C	ISO 306
Heat deflection temperature, 0.45 MPa	90 °C	ISO 75-1/-2
Melting temperature, 10°C/min	169 °C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	- / 1.0E+13 ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73,4°F)	- / 9.0E+11 ohm/m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 600	IEC 60112
Dielectric stress, 23°C (73,4°F)	- / 42.5	IEC 60243-1
Relative permittivity, 100Hz	- / 9	IEC 60250
Relative permittivity, 1Mhz	- / 4	IEC 60250
Dissipation factor, 100Hz	- / 1440	IEC 60250
Dissipation factor, 1Mhz	- / 1440	IEC 60250

*DRY: Dry As Molded (DAM) if pellet / Dry if powder.
COND: Conditionned.

OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.7 %	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	1.1 %	ISO 62
Specific gravity, 23°C (73°F)	1.01 g/cm ³	ISO 1183-1

PACKAGING

This grade is delivered dried in sealed packaging ready to be processed. Available packaging:

- 20 kg / 44 lb bags
- 25 kg / 55 lb bags

SHELF LIFE

Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 230°C / 260°C / 290°C (445°F / 500°F / 555°F)
- Typical mold temperature - Injection molding: 20-60°C (70-140°F)
- Drying time and temperature: 65-75°C (150-165°F) / 4-6 hours

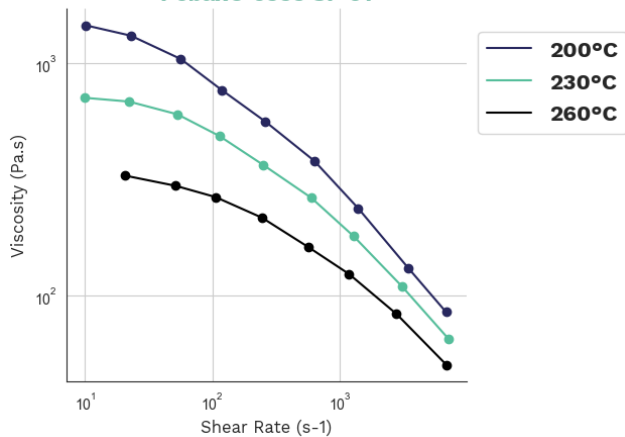
REGIONAL AVAILABILITY

Asia Pacific, Europe, Latin America and the Caribbean, Middle East, Northern America

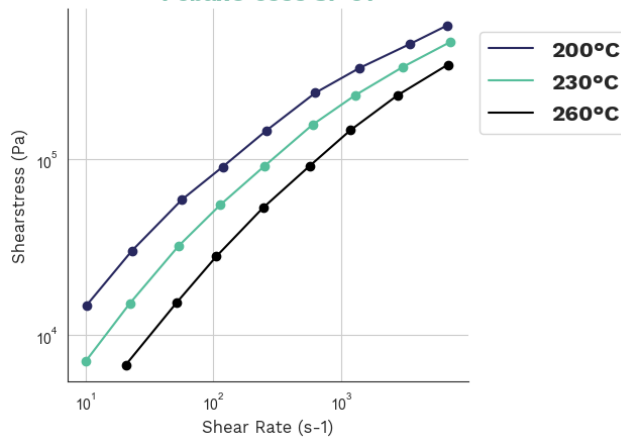
PEBAX® 6333 SP 01

DIAGRAMS

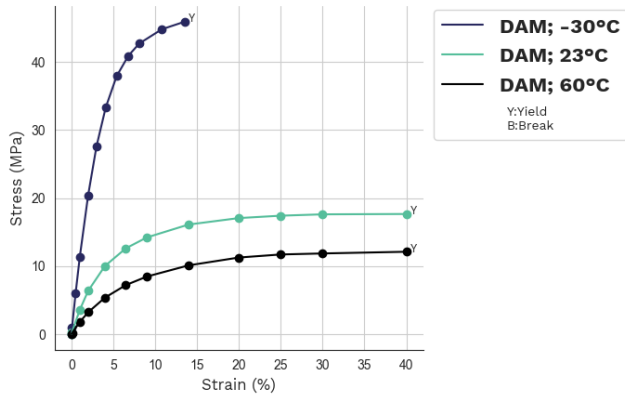
Viscosity-shear rate
Pebax® 6333 SP 01



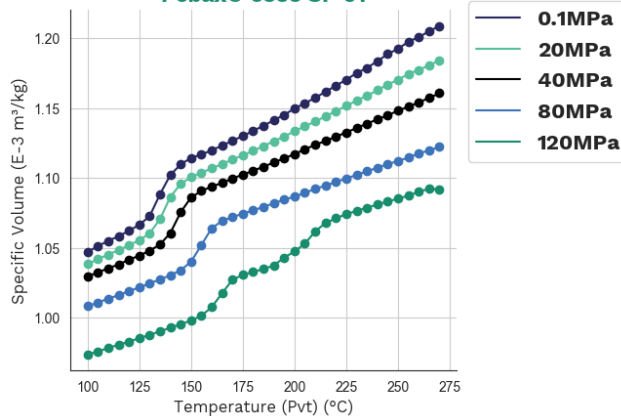
Shearstress-shear rate
Pebax® 6333 SP 01



Stress-strain
Pebax® 6333 SP 01

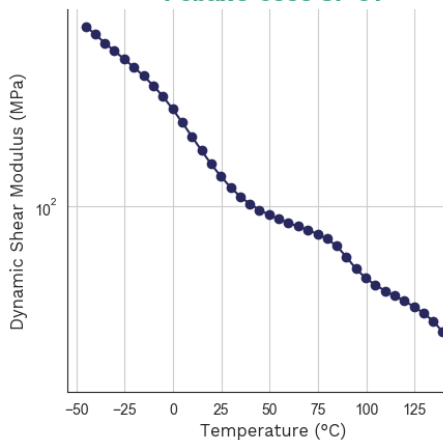


Specific volume-temperature (pvT)
Pebax® 6333 SP 01

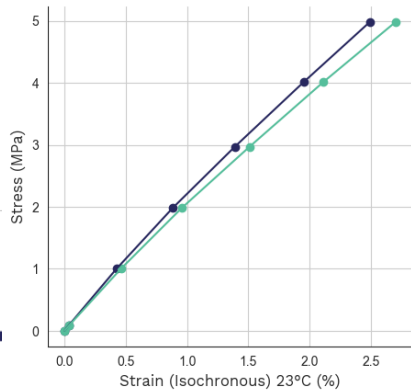


PEBAX® 6333 SP 01

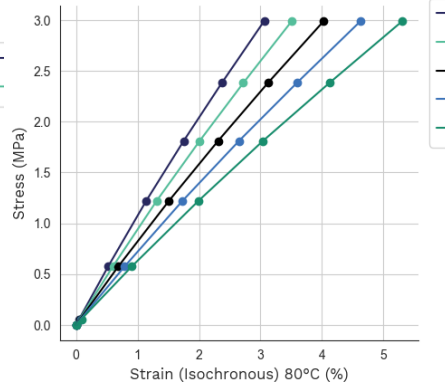
Dynamic Shear modulus-tempera
Pebax® 6333 SP 01



Stress-strain (Isochronous) 23°C
Pebax® 6333 SP 01



Stress-strain (Isochronous) 80°C
Pebax® 6333 SP 01



Headquarter: Arkema France
420, rue d'Estienne d'Orves
92705 Colombes Cedex – France
T +33 (0)1 49 00 80 80

Disclaimer - Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/global/en/products/product-safety/disclaimer/> which is incorporated herein by reference and made a part hereof.
Arkema France, a French société anonyme registered at the Trade and Companies Register of Nanterre under the number 319 632 790

ARKEMA