

TECHNICAL DATA SHEET

PEBAX® RNEW® 1100

POLYETHER BLOCK AMIDE PELLET

PEBAX® Rnew 1100 resin offers an excellent combination of high impact resistance, stiffness and lightness. In addition to high energy return, the main future of Pebax® materials, this grade will bring high performance to a wide range of sport applications: winter sports, team sports. Pebax® Rnew 1100 resin is produced from a renewable source.

TYPE

PEBA

MAIN APPLICATIONS

- Footwear - Outsole/Components
- Industry - Distribution

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

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

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Shrinkage, Parallel (t+24h)	0.3	%	ISO 294-4
Shrinkage, Normal (t+24h)	0.3	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 1090	MPa	ISO 178
Tensile modulus, 23°C (73°F), 1 mm/min	- / 1100	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 5	%	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 39	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	- / 245	%	ISO 527-1/-2
Stress at break, 23°C (73°F), 50 mm/min	- / 42	MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	- / 80	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 30	kJ/m2	ISO 179 1eA
Hardness, Shore D, Instantaneous	/ 74		ISO 868
Hardness, Shore D, 15 s	/ 68		ISO 868

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

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	187	°C	ISO 11357-1/-3

PEBAX® RNEW® 1100

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Specific gravity, 23°C (73°F)	0.999	g/cm ³	ISO 1183-1
Bio-based carbon content	65	%	ASTM D6866

PACKAGING

Available packaging:

- 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: 10-30°C (50-90°F)
- Drying time and temperature: 70-80°C (160-175°F) / 4-6 hours

SPECIAL CHARACTERISTICS

- Bio-based

REGIONAL AVAILABILITY

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