+135-3858-6433 (GuangDong)
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PEBAX®

TECHNICAL DATA SHEET

PEBAX® RNEW® 80R53 SP 02

POLYETHER BLOCK AMIDE PELLET

PEBAX® RNEW® 80R53 SP 01 is a polyether block amide, a thermoplastic elastomer made of flexible polyether and rigid polyamide. It is partially produced from a renewable & sustainable source (castor oil). This natural SP grade is heat & UV stabilized. It is used in sport and consumer applications.

TYPE

PEBA

MAIN APPLICATIONS

- Footwear - Outsole/Components
- Others
- Hoses & Tubes

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

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

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Shrinkage, Parallel (t+24h)	1.2	%	ISO 294-4
Shrinkage, Normal (t+24h)	1.3	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 840	MPa	ISO 178
Tensile modulus, 23°C (73°F), 1 mm/min	- / 944	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 24	%	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 33	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 300	%	ISO 527-1/-2
Stress at break, 23°C (73°F), 50 mm/min	- / 52	MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	- / 44	kJ/m2	ISO 179 1eA
Hardness, Shore D, 15 s	- / 67		ISO 868
Charpy notched impact strength, -30°C (-22°F)	- / 16	kJ/m2	ISO 179 1eA
Charpy unnotched impact strength, 23°C (73°F)	- / No Break		ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	- / No Break		ISO 179 1eU

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

ARKEMA

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THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	188	°C	ISO 11357-1/-3

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Bio-based carbon content, Measured	92	%	ASTM D6866
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.8	%	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	0.7	%	ISO 62
Specific gravity, 23°C (73°F)	1.02	g/cm³	ISO 1183-1

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: 20-60°C (70-140°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

DIAGRAMS