

TECHNICAL DATA SHEET PEBAX® 5513 SP 01

POLYETHER BLOCK AMIDE PELLET

PEBAX® 5513 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. Added to PA6, PEBAX® 5513 SP 01 enhances the properties of PA6, especially at low temperatures and low humidity content, while maintaining the transparency of the polyamide film and improving its soft touch.

DESIGNATION

PEBA

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

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

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

| 속성 | 값 | 테스트 표준 |
|-----------------------------|-------|-----------|
| Shrinkage, Parallel (t+24h) | 0.7 % | ISO 294-4 |
| Shrinkage, Normal (t+24h) | 0.8 % | ISO 294-4 |

MECHANICAL PROPERTIES

| 속성 | DRY / COND VALUE* | 테스트 표준 |
|---|---------------------|--------------|
| Hardness, Shore D, 15 s | - / 54 | ISO 868 |
| 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 |
| Nominal strain at break, 23°C (73°F), 50 mm/min | > 500 / > 500 % | ISO 527-1/-2 |
| Yield strain, 23°C (73°F), 50 mm/min | 32 / 30 % | ISO 527-1/-2 |
| Yield stress, 23°C (73°F), 50 mm/min | 14 / 13 MPa | ISO 527-1/-2 |
| Tensile modulus, 23°C (73°F), 1 mm/min | - / 180 MPa | ISO 527-1/-2 |
| Charpy notched impact strength, 23°C (73°F) | No Break / No Break | ISO 179 1eA |
| Charpy notched impact strength, -30°C (-22°F) | - / 34 kJ/m2 | ISO 179 1eA |
| Stress at break, 23°C (73°F), 50 mm/min | - / 60 MPa | ISO 527-1/-2 |

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

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| 속성 | 값 | 테스트 표준 |
|--|--------|----------------|
| Vicat softening temperature, 50N at 50°C/h | 169 °C | ISO 306 |
| Melting temperature, 10°C/min | 195 °C | ISO 11357-1/-3 |

OTHER PROPERTIES

| 속성 | 값 | 테스트 표준 |
|--|------------------------|------------|
| Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR | 1.3 % | ISO 62 |
| Water absorption, 23°C (73°F), immersion, equilibrium | 6.7 % | ISO 62 |
| Specific gravity, 23°C (73°F) | 1.09 g/cm ³ | ISO 1183-1 |

PACKAGING

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

- 21 kg / 44 lb bags
- 26 kg / 55 lb bags
- 455 kg / 1000 lb rigid containers

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: 210°C / 240°C / 270°C (410°F / 430°F / 520°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

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