

TECHNICAL DATA SHEET

RILSAN® CLEAR G850 RNEW®

AMORPHOUS POLYAMIDE PELLET

RILSAN® CLEAR G850 RNEW® is a high performance transparent amorphous polyamide. It is partially produced from a renewable and sustainable source (castor oil). This grade has been specially designed for injection molding applications, ideally suited for optic as high end eyewear frames.

Designation : ISO 16396 - PA, G1HT, C14-020

DESIGNATION

PA*

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

ADDITIVES

- Heat Stabilized

RHEOLOGICAL PROPERTIES

| 속성 | 값 | 테스트 표준 |
|---|----------------------------|-----------|
| Shrinkage, Parallel (t+24h) | 0.9 % | ISO 294-4 |
| Shrinkage, Normal (t+24h) | 0.9 % | ISO 294-4 |
| Melt volume flow rate (MVR), 275°C / 2.16 kg (527°F / 4.4 lb) | 4.4 cm ³ /10min | ISO 1133 |

MECHANICAL PROPERTIES

| 속성 | DRY / COND VALUE* | 테스트 표준 |
|---|------------------------------|--------------|
| 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 |
| Nominal strain at break, 23°C (73°F), 50 mm/min | > 50 / > 50 % | ISO 527-1/-2 |
| Yield strain, 23°C (73°F), 50 mm/min | 8.2 / 8.6 % | ISO 527-1/-2 |
| Yield stress, 23°C (73°F), 50 mm/min | 64 / 58 MPa | ISO 527-1/-2 |
| Flexural modulus, 23°C (73°F) | - / 1600 MPa | ISO 178 |
| Tensile modulus, 23°C (73°F), 1 mm/min | 1680 / 1640 MPa | ISO 527-1/-2 |
| Charpy notched impact strength, 23°C (73°F) | - / 8.5 kJ/m ² | ISO 179 1eA |
| Charpy notched impact strength, -30°C (-22°F) | 8.6 / 11.4 kJ/m ² | ISO 179 1eA |

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

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| 속성 | 값 | 테스트 표준 |
|--|--------|----------------|
| Glass transition temperature, 10°C/min | 145 °C | ISO 11357-1/-2 |
| Yellow card available | yes | |
| Heat deflection temperature, 0.45 MPa | 135 °C | ISO 75-1/-2 |
| Heat deflection temperature, 1.8 MPa | 120 °C | ISO 75-1/-2 |

OTHER PROPERTIES

| 속성 | 값 | 테스트 표준 |
|--|------------------------|------------|
| Bio-based carbon content, Measured | 45 % | ASTM D6866 |
| Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR | 1.7 % | ISO 62 |
| Water absorption, 23°C (73°F), immersion, equilibrium | 4 % | 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:

- 26 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.

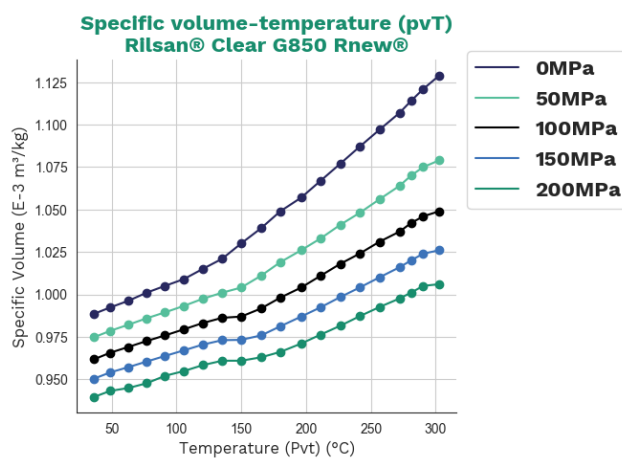
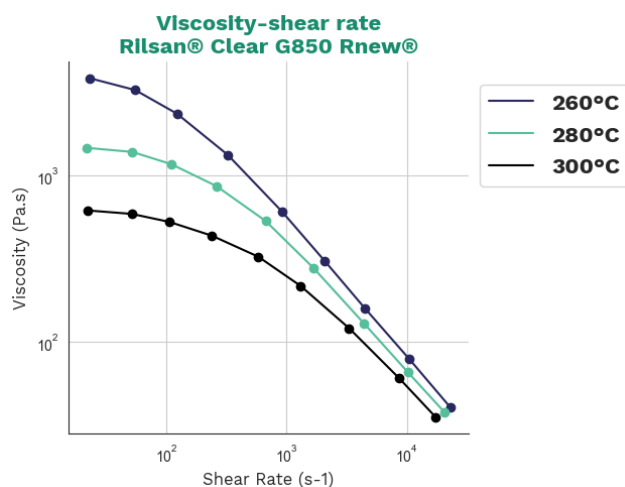
PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 260°C / 280°C / 300°C (500°F / 535°F / 570°F)
- Typical mold temperature - Injection molding: 20-80°C (70-175°F)
- Drying time and temperature: 90°C (195°F) / 4-6 hours

SPECIAL CHARACTERISTICS

- Bio-based
- Transparent

DIAGRAMS



RILSAN® CLEAR G850 RNEW®

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