

XYRON G712H Technical Datasheet

| | | Grade | XYRON G712H |
|--|--|---------------|-----------------------------------|
| Physical Property | | Method | Unit |
| Reinforce Mineral | | | Value |
| Density | | ISO 1183 | 20GF g/cm ³ 1.21 |
| Mould Shrinkage | | | |
| Flow Direction | | Internal | % 0.26 ~ 0.54 |
| Perpendicular Direction | | Internal | % 0.26 ~ 0.54 |
| Mechanical Property | | Method | Unit |
| Tensile Stress (at yield) | | ISO 527-2 | MPa 105 |
| Tensile Strain (Nominal at break) | | ISO 527-2 | % 2.0 |
| Flexural Strength | | ISO 178 | MPa 164 |
| Flexural Modulus | | ISO 178 | GPa 6.50 |
| Charpy Impact Strength (Notched) @ 23°C | | ISO 179 | KJ/m ² 10.0 |
| Thermal Property | | Method | Unit |
| Heat Deflection Temperature | | | Value |
| 1.80MPa, Unannealed | | ISO 75-2/A | °C 136 |
| Coefficient Linear Thermal Expansion | | | |
| Flow Direction | | ISO 11359-2 | cm/cm/°C 0.000027 |
| Transvers Direction | | ISO 11359-2 | cm/cm/°C 0.000069 |
| Recommended Processing Conditions | | Unit | |
| Resin Drying Time | | Hours | 2 ~ 4 |
| Resin Drying Temperature | | °C | 90 ~ 100 |
| Mold Temperature | | °C | 60 ~ 100 |
| Resin Melt Temperature | | °C | 260 ~ 300 |

Disclaimer

Data shown are typical values obtained by proper testing methods and should not be used for specification purpose. Please use these data for selecting the most appropriate grade suitable for specific usage. Data listed above may be subjected to changes due to improvement in properties.

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Note

- Take care to ensure that XYRON is not predried for longer than 8 hours. Excessive predrying may result in degradation of physical properties and color changes.
- Properly molded XYRON (sprues, runners, molded articles, etc.) may be reground, dried, and remolded without adverse effects. It is essential that material to be reground be free from oil, grease, dirt, and foreign substances, and shows no signs of degradation. Regrind levels up to 20% can be used successfully, but it is not advisable to use reground material for applications where surface appearances are critical.
- High viscosity GPPS and Asaclean SA™ (available from Asahi Kasei Corporation and distributors) are recommended purging materials for all XYRON grades. Purging should be performed at temperature ranges appropriate for each grade.
- In order to prevent polymer degradation when molding operation is stopped or interrupted, the following measures are recommended.

| | |
|-------------------------------------|---|
| Up to 30 minutes : | Maintain cylinder temperature. Purge barrel using same material prior to the re-start of molding operation. |
| From 30 minutes to 12 hours : | Decrease cylinder temperature to 200 ± 20°C. Purge barrel using high viscosity GPPS. Upon commencement of molding operation, Purge barrel using material for molding after increasing cylinder temperature to the required level. |
| For downtime longer than 12 hours : | Purge barrel with high viscosity GPPS, and shut down machine. |

- Generally, mold release agents are not required for molding XYRON resins. In cases where mold release agents are needed due to the complex shape of the mold, minimal use is recommended. Silicone-based mold release agents such as Pelicoat B™ (manufactured and sold by Chyukyo Kasei Kogyo Ltd., Japan) are recommended, as the chemical ingredients do not react with XYRON.

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