

VYLOSHOT® GM-960-R02 Technical Data

Feature

- For Low Pressure Molding
- Heat stability
- Humidity stability

Generally Properties

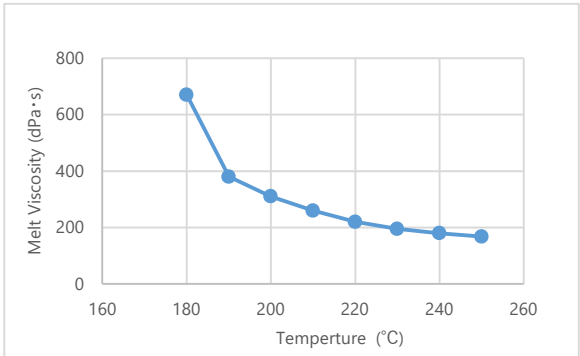
Properties	Unit	Value	Test method
Color	-	Black	Visualy
Specifc gravity	-	1.11	TOYOBO method
Melting point	°C	160	TOYOBO method
Grasstransition point	°C	-65	TOYOBO method
Melt Viscosity(220°C)	dPa·s	210	TOYOBO method
Balance moisiture content	%	0.4	TOYOBO method
Hardness(shoreA)	-	92	TOYOBO method
Tensile strength	MPa	7	TOYOBO method
Tensile elongation	%	550	TOYOBO method
Tensile modulus	MPa	40	TOYOBO method

Properties	Unit	Value	Test method
Volume resistivity(20°C)	Ω·cm	2.3E+13	TOYOBO method
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Adhesiveness

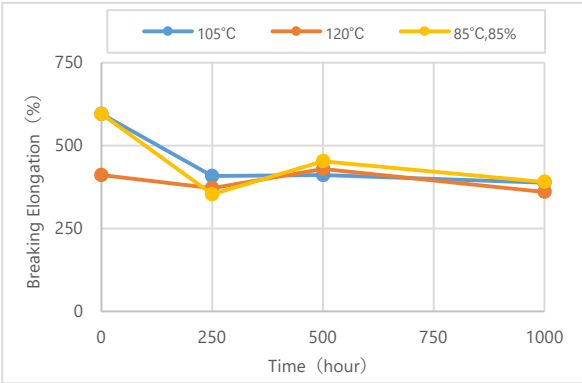
Substrate	Shear bond strength (MPa)	Peel strength (N/25mm)
FR4	-	-
PBT-GF30	3.4	0.6
ABS	>4.3	12.5
PC	6.1	120
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Melt Viscosity

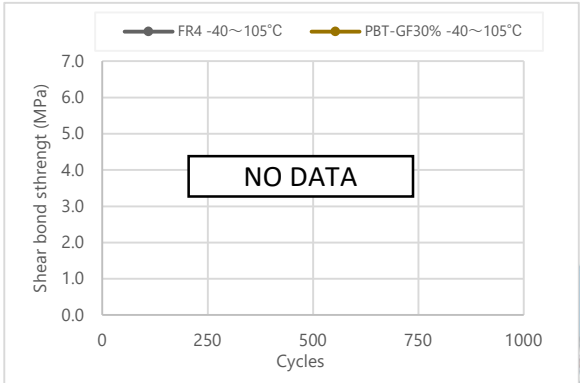


Long Term Durability

Changes of tensile elongation under high temperature and humidity (Elongation condition:room temperature)



Changes of shear bond strength under thermal shock test (-40~105°C)



The data on this document are typical values measure by specific test methods and are not guaranteed.

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Recommended Usage Conditions

Molding machine: • Injection Type(Electric or Hybrid type)
 • Extrusion type
 • Plunger type
 • Melt-tank type

Pre-Drying: • Hot-air dryer 40~60°C×3~24hours (Target moisture content <0.10% (<0.05% is more preferable))
 • Using a Hopper Dryer
 ※"Pellet Aggregation" will occur if dried above recommended temperature
 ※If you use pellets that have been left in the atmosphere and have absorbed moisture, the following problems will occur:
 Voids in moldings, Decreasing mechanical properties and adhesion.
 ※Drying conditions will vary depending on the capacity of the dryer, so please consider your appropriate drying conditions.

Molding temperature: 180~230°C
 ※Low molding temperatures reduce fluidity/adhesion and high temperatures accelerate resin deterioration.

Cautions

Safety: Please use according to Safety data sheet

Storage: After use, seal it in a moisture-proof aluminum bag and store it indoors at room temperature away from direct sunlight.

During molding work: After resin remains in the molding machine as shown below, be sure to drain the remaining resin in the cylinder and replace with new resin before restarting operation.

(1) At the start of the day's work, (2) After lunch break, etc.

Please drain the resin inside the cylinder at the end of daily operation.

At the end of the day's work, please re-dry any samples left in the hopper before using.

Supports mold release: VYLOSHOT has strong adhesion to the mold, so it is recommended to take measures against mold release when designing the product.

(1) Ensuring the extraction taper angle (3° standard), product design with rounded chamfers on corners, large sprue diameter, and appropriate ejector installation

Maintenance: (1) Regular cleaning : If molding defects or short shots occur frequently.

Work details: Disassembly and cleaning of molding machine

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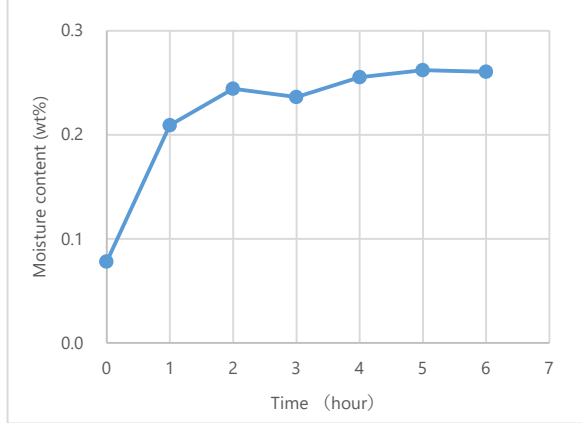
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Appendix

Moisture absorption of pellets at room temperature (23°C,50%RH)



Relation between drying temperature and moisture in pellet

