



# **GROMAX ENTERPRISES CORP.**

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## **Engineering Plastics Polyethylene Terephthalate**

### **Technical Data**

#### **PET 9030-104E**

PET glass/mineral 30% reinforced injection molding grade.

#### **Characteristics**

- 1)excellent electrical property
- 2)excellent mechanic and chemical property
- 3)excellent weatherability
- 4)excellent wear property
- 5)excellent moldability
- 6)low warp age
- 7)high resistance to fuels, oil, fats and many solvents

#### **Injection Molding Condition**

|                       |                                                                                                               |
|-----------------------|---------------------------------------------------------------------------------------------------------------|
| Cylinder temperatures | : 265-300°C                                                                                                   |
| Nozzle temperature    | : 270-300°C                                                                                                   |
| Mold temperature      | : 80-120°C , suitable temperature 90-120°C                                                                    |
| Injection rate        | : middle – fast                                                                                               |
| Screw speed           | : 60-120 rpm, to be chosen in such a way that plasticizing time is just within cooling time.                  |
| Pressure              | Injection pressure : 500-1200 kg/cm <sup>2</sup>                                                              |
|                       | Holding pressure : 300-800 kg/cm <sup>2</sup>                                                                 |
|                       | Back pressure : 0-3 kg/cm <sup>2</sup>                                                                        |
| Mold shrinkage        | Mold shrinkage 1.6 mm thickness horizon is 0.1-0.3% and vertical is 0.4-1.1% under the test method ASTM D955. |

#### **Packaging**

25 kg/ paper bag

#### **Material handing**

Moisture pick-up from ambient air should be avoided. Keep hopper properly closed.



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## Engineering Plastics Polyethylene Terephthalate

### PET 9030-104E

| Property                                    | Value            | Unit               | Test method |
|---------------------------------------------|------------------|--------------------|-------------|
| <b>ASTM</b>                                 |                  |                    |             |
| Ash Content                                 | 30               | %                  |             |
| Specific gravity                            | 1.54             | -                  | D792        |
| Melting point                               | 257              | °C                 | DSC         |
| Heat deflection temperature under load      |                  |                    |             |
| --- 18.6 kg/cm <sup>2</sup>                 | 215              | °C                 | D648        |
| Moisture absorption (24h)                   | 0.05             | %                  | D570        |
| Flammability acc. to UL94, 0.8 mm thickness | HB               | -                  | UL94        |
| Tensile strength                            | 1150             | kg/cm <sup>2</sup> | D638        |
| Tensile elongation                          | 3.0              | %                  | D638        |
| Flexural strength                           | 1700             | kg/cm <sup>2</sup> | D790        |
| Flexural modulus                            | 70000            | kg/cm <sup>2</sup> | D790        |
| Izod impact strength - notched 1/4"         | 8.0              | kg.cm/cm           | D256        |
| Dielectric strength, 2 mm thickness         | 20               | KV/mm              | D149        |
| Volume resistivity                          | 10 <sup>16</sup> | Ω-cm               | D257        |
| Surface resistivity                         | 10 <sup>13</sup> | Ω                  | D257        |
| Dielectric constant                         | 3.5              | 60Hz               | D150        |
| Dielectric dissipation factor               | 0.005            | 60Hz               | D150        |

※DATA FOR REFERENCE