

## CELANEX® 2302 GV1/45 - PBT

### Description

PBT + PET, 45% glass filled, high gloss

Celanex 2302 GV1/45 is a 45% glass fiber reinforced Polybutylene terephthalate polymer blend with PET, which provides excellent stiffness and good surface appearance.

| Physical properties                  | Value     | Unit                   | Test Standard   |
|--------------------------------------|-----------|------------------------|-----------------|
| Density                              | 105       | lb/ft <sup>3</sup>     | ISO 1183        |
| Melt volume rate, MVR                | 7         | cm <sup>3</sup> /10min | ISO 1133        |
| MVR temperature                      | 509       | °F                     | ISO 1133        |
| MVR load                             | 4.76      | lb                     | ISO 1133        |
| Molding shrinkage, parallel (flow)   | 0.1 - 0.2 | %                      | ISO 294-4, 2577 |
| Molding shrinkage, transverse normal | 0.3 - 0.7 | %                      | ISO 294-4, 2577 |
| Water absorption, 23°C-sat           | 0.4       | %                      | Sim. to ISO 62  |
| Humidity absorption, 23°C/50%RH      | 0.15      | %                      | ISO 62          |

| Mechanical properties                 | Value  | Unit                  | Test Standard |
|---------------------------------------|--------|-----------------------|---------------|
| Tensile modulus                       | 2.32E6 | psi                   | ISO 527-1, -2 |
| Tensile stress at break, 5mm/min      | 24700  | psi                   | ISO 527-1, -2 |
| Tensile strain at break, 5mm/min      | 1.8    | %                     | ISO 527-1, -2 |
| Charpy notched impact strength, 23°C  | 4.99   | ft-lb/in <sup>2</sup> | ISO 179/1eA   |
| Charpy notched impact strength, -30°C | 4.99   | ft-lb/in <sup>2</sup> | ISO 179/1eA   |
| Ball indentation hardness, 30s        | 34800  | psi                   | ISO 2039-1    |

| Thermal properties                         | Value  | Unit   | Test Standard |
|--------------------------------------------|--------|--------|---------------|
| DTUL at 1.8 MPa                            | 401    | °F     | ISO 75-1, -2  |
| Coeff. of linear therm expansion, parallel | 0.0833 | E-4/°F | ISO 11359-2   |
| Flammability at thickness h                | HB     | class  | UL 94         |
| thickness tested (h)                       | 0.0315 | in     | UL 94         |

### Typical injection moulding processing conditions

| Pre Drying                                      | Value     | Unit |
|-------------------------------------------------|-----------|------|
| Necessary low maximum residual moisture content | 0.02      | %    |
| Drying time                                     | 3 - 4     | h    |
| Drying temperature                              | 248 - 284 | °F   |

| Temperature              | Value     | Unit |
|--------------------------|-----------|------|
| Hopper temperature       | 68 - 122  | °F   |
| Feeding zone temperature | 446 - 464 | °F   |
| Zone1 temperature        | 482 - 500 | °F   |
| Zone2 temperature        | 482 - 500 | °F   |
| Zone3 temperature        | 500 - 518 | °F   |
| Zone4 temperature        | 500 - 518 | °F   |
| Nozzle temperature       | 509 - 527 | °F   |
| Melt temperature         | 509 - 527 | °F   |
| Mold temperature         | 194 - 248 | °F   |
| Hot runner temperature   | 509 - 527 | °F   |

| Pressure           | Value | Unit |
|--------------------|-------|------|
| Back pressure max. | 30    | bar  |

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**CELANEX® 2302 GV1/45 - PBT**

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**Speed**

**Value**

Injection speed

high

**Characteristics**

**Special Characteristics**

Auto spec approved, Heat resistant, High gloss

**Product Categories**

Glass reinforced, Polymer blend

**Processing**

Injection molding

**Delivery Form**

Pellets

**Additives**

Release agent