

# CELANEX® 6407

30% glass-fiber / mineral filled PBT+PET blend; improved impact resistant; low warp grade

Celanex 6407 is a 30% glass/mineral reinforced resin particularly suited for large exterior automotive components, where extended flow, flatness and good surface appearance is essential.

## Product information

|                   |                  |           |
|-------------------|------------------|-----------|
| Part Marking Code | (PBT-I+PET)-GF30 | ISO 11469 |
|-------------------|------------------|-----------|

## Rheological properties

|                                    |             |                 |
|------------------------------------|-------------|-----------------|
| Melt mass-flow rate                | 21 g/10min  | ISO 1133        |
| Melt mass-flow rate, Temperature   | 265 °C      |                 |
| Melt mass-flow rate, Load          | 2.16 kg     |                 |
| Moulding shrinkage range, parallel | 0.3 - 0.6 % | ISO 294-4, 2577 |
| Moulding shrinkage range, normal   | 1.0 %       | ISO 294-4, 2577 |

## Typical mechanical properties

|                                       |                       |              |
|---------------------------------------|-----------------------|--------------|
| Tensile Modulus                       | 8000 MPa              | ISO 527-1/-2 |
| Stress at break, 5mm/min              | 85 MPa                | ISO 527-1/-2 |
| Strain at break, 5mm/min              | 2.1 %                 | ISO 527-1/-2 |
| Flexural Modulus                      | 8000 MPa              | ISO 178      |
| Flexural Strength                     | 140 MPa               | ISO 178      |
| Charpy notched impact strength, 23 °C | 6 kJ/m <sup>2</sup>   | ISO 179/1eA  |
| Izod notched impact strength, 23 °C   | 6.2 kJ/m <sup>2</sup> | ISO 180/1A   |

## Thermal properties

|                                             |          |                |
|---------------------------------------------|----------|----------------|
| Temp. of deflection under load, 1.8 MPa     | 172 °C   | ISO 75-1/-2    |
| Temp. of deflection under load, 0.45 MPa    | 209 °C   | ISO 75-1/-2    |
| Coeff. of linear therm. expansion, parallel | 19 E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal   | 70 E-6/K | ISO 11359-1/-2 |

## Other properties

|                       |                        |                |
|-----------------------|------------------------|----------------|
| Water absorption, 2mm | 0.1 %                  | Sim. to ISO 62 |
| Density               | 1510 kg/m <sup>3</sup> | ISO 1183       |

## Injection

|                                 |              |
|---------------------------------|--------------|
| Drying Temperature              | 120 - 130 °C |
| Drying Time, Dehumidified Dryer | 4 h          |
| Processing Moisture Content     | 0.02 %       |
| Max. mould temperature          | 65 - 96 °C   |
| Injection speed                 | medium-fast  |

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## Processing Texts

### Pre-drying

To avoid hydrolytic degradation during processing, CELANEX resins have to be dried to a moisture level equal to or less than 0.02%. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-40°F (-40°C) at 250°F (121°C) for 4 hours.

### Longer pre-drying times/storage

For subsequent storage of the material in the dryer until processed (<= 60 h) it is necessary to lower the temperature to 100° C.

## Other Approvals

### Other Approvals

| OEM                   | Specification             | Additional Information |
|-----------------------|---------------------------|------------------------|
| Stellantis - Chrysler | CPN 3669                  | Black                  |
| GM                    | GMW17448P-PBT+PET-GF15M15 |                        |