

# CELANEX® 4309AR

30% glass-fiber reinforced; alkaline resistant PBT grade with good hydrolysis resistance  
 Celanex 4309AR is a 30% glass reinforced PBT with enhanced resistance to hydrolysis, alkaline environments and salt water spray.

## Product information

|                   |            |           |
|-------------------|------------|-----------|
| Part Marking Code | PBT-I-GF30 | ISO 11469 |
|-------------------|------------|-----------|

## Rheological properties

|                                    |             |                 |
|------------------------------------|-------------|-----------------|
| Melt mass-flow rate                | 13 g/10min  | ISO 1133        |
| Melt mass-flow rate, Temperature   | 265 °C      |                 |
| Melt mass-flow rate, Load          | 5 kg        |                 |
| Moulding shrinkage range, parallel | 0.3 - 0.6 % | ISO 294-4, 2577 |
| Moulding shrinkage range, normal   | 1.4 - 1.6 % | ISO 294-4, 2577 |

## Typical mechanical properties

|                                       |           |              |
|---------------------------------------|-----------|--------------|
| Tensile Modulus                       | 8100 MPa  | ISO 527-1/-2 |
| Stress at break, 5mm/min              | 100 MPa   | ISO 527-1/-2 |
| Strain at break, 5mm/min              | 3 %       | ISO 527-1/-2 |
| Flexural Modulus                      | 7600 MPa  | ISO 178      |
| Flexural Strength                     | 150 MPa   | ISO 178      |
| Charpy impact strength, 23°C          | 45 kJ/m²  | ISO 179/1eU  |
| Charpy impact strength, -30°C         | 50 kJ/m²  | ISO 179/1eU  |
| Charpy notched impact strength, 23°C  | 10 kJ/m²  | ISO 179/1eA  |
| Charpy notched impact strength, -30°C | 8.7 kJ/m² | ISO 179/1eA  |
| Izod notched impact strength, 23°C    | 9 kJ/m²   | ISO 180/1A   |
| Izod impact strength, 23°C            | 40 kJ/m²  | ISO 180/1U   |
| Hardness, Rockwell, M-scale           | 62        | ISO 2039-2   |

## Thermal properties

|                                             |          |                |
|---------------------------------------------|----------|----------------|
| Temp. of deflection under load, 1.8 MPa     | 191 °C   | ISO 75-1/-2    |
| Temp. of deflection under load, 0.45 MPa    | 217 °C   | ISO 75-1/-2    |
| Coeff. of linear therm. expansion, parallel | 23 E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal   | 95 E-6/K | ISO 11359-1/-2 |

## Flammability

|                               |          |       |
|-------------------------------|----------|-------|
| Burning Behav. at thickness h | HB class | UL 94 |
| Thickness tested              | 0.80 mm  | UL 94 |



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## Other properties

Density

1440 kg/m<sup>3</sup>

ISO 1183

## Injection

Melt Temperature Optimum

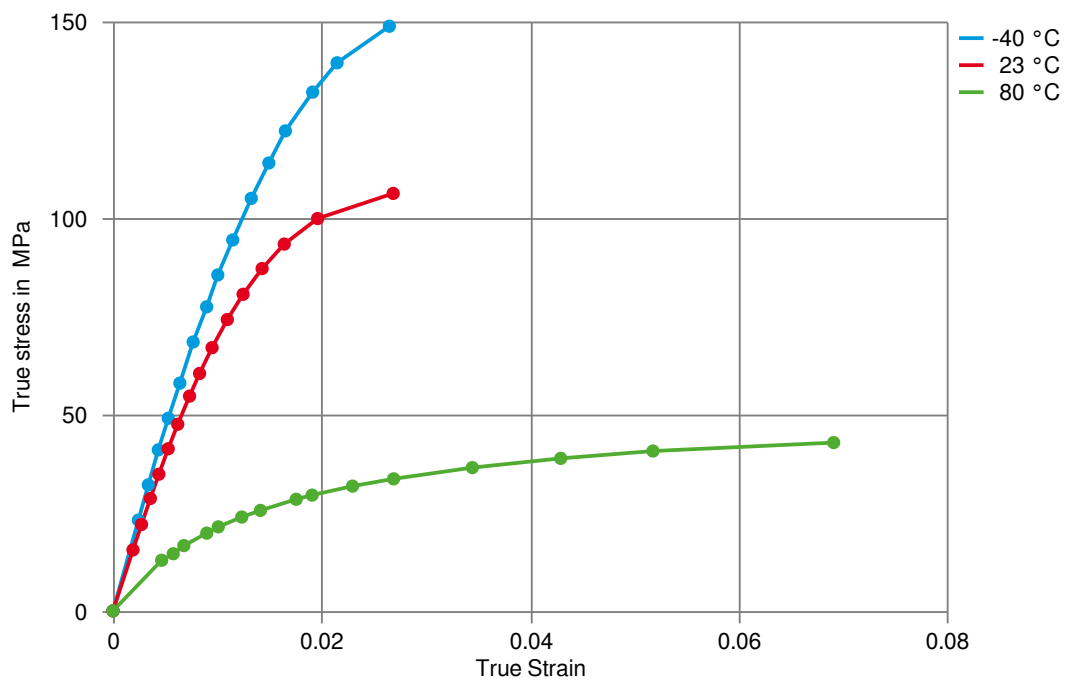
260 °C

Internal

Max. mould temperature

65 - 93 °C

## True stress-strain



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## Processing Texts

Pre-drying

4 Hrs. at 250F, <0.02% moisture

## Other Approvals

Other Approvals

| OEM   | Specification | Additional Information            |
|-------|---------------|-----------------------------------|
| Honda |               | Validated for Strut sensor by HGT |

