

PRODUCT INFORMATION

PLEXIGLAS® Resist zk5HC

Product Profile:

PLEXIGLAS® Resist zk5HC is an amorphous, impact-modified thermoplastic molding compound (PMMA-I).

Typical properties of impact-modified PLEXIGLAS® molding compounds are

- high weather resistance
- excellent transmission and clarity
- brilliant appearance
- the pleasant feel and sound of the moldings.

PLEXIGLAS® Resist zk5HC is characterized by the following special properties:

- high break resistance and impact strength
- best resistance to stress cracking of all impact-modified PLEXIGLAS® molding compounds.

Application:

Used for extruding and coextruding sheets and profiles.

Examples:

extruded/coextruded sheets and profiles for automotive bodies and the sanitaryware sector (bathtubs and shower trays) or crystal-clear luminaire covers for industrial plants that come into contact with aggressive media.

Processing:

PLEXIGLAS® Resist zk5HC molding compound can be processed on machines with 3-zone general purpose screws for engineering thermoplastics.

Physical Form / Packaging:

PLEXIGLAS® Resist zk molding compounds are supplied as pellets of uniform size in 25kg polyethylene bags or in 500kg boxes with PE lining; other packaging on request.

Properties:

| | Parameter | Unit | Standard | PLEXIGLAS® Resist zk5HC |
|--|------------------|-----------|-----------------|----------------------------|
| Mechanical Properties | | | | |
| Tensile Modulus | 1 mm/min | MPa | ISO 527 | 2500 |
| Yield Stress | 50 mm/min | MPa | ISO 527 | 63 |
| Yield Strain | 50 mm/min | % | ISO 527 | 5 |
| Nominal Strain @ Break | | % | ISO 527 | 28 |
| Charpy Impact Strength | 23°C | kJ/m² | ISO 179/1eU | 55 |
| Thermal Properties | | | | |
| Vicat Softening Temperature | B / 50 | °C | ISO 306 | 100 |
| Glass Transition Temperature | | °C | ISO 11357 | 108 |
| Temp. of Deflection under Load | 0.45 MPa | °C | ISO 75 | * |
| Temp. of Deflection under Load | 1.8 MPa | °C | ISO 75 | * |
| Coeff. of Linear Therm. Expansion | 0 - 50°C | E-5 /°K | ISO 11359 | 9 |
| Classes of construction product | | | DIN EN 13501-1 | E |
| Flammability UL 94 | 1.5 mm | Class | IEC 60695-11-10 | HB |
| Rheological Properties | | | | |
| Melt Volume Rate, MVR | 230°C / 3.8kg | cm³/10min | ISO 1133 | 0.7 |
| Optical Properties | | | | |
| | d=3 mm | | | |
| Luminous transmittance | D65 | % | ISO 13468-2 | 92 |
| Refractive Index | 589nm/23°C | | ISO 489 | 1.49 |
| Other Properties | | | | |
| Density | | g/cm³ | ISO 1183 | 1.17 |
| Water Absorption in Water | saturation, 23°C | % | ISO 62 | 1.9 |
| Humidity Absorption | 23°C / 50% | % | ISO 62 | 0.5 |
| Recommended Processing Conditions | | | | |
| Predrying Temperature | | °C | | max. 90 |
| Predrying Time in Desiccant-Type Drier | | h | | 2 - 3 |
| Melt Temperature | | °C | | 220 - 260 |
| Mold Temperature (Injection Molding) | | °C | | 50 - 70 |

All listed technical data are typical values intended for your guidance. They are given without obligation and do not constitute a materials specification.

Certified to ISO 9001:2015, ISO 14001:2015 and IATF 16949:2016.