



# TECHNICAL DATA SHEET

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## Kimfill 4531

### Reinforced Polyamide 66 Compound

#### Product Description

Kimfill 4531 is a polyamide 66 injection-molding-grade reinforced with 30 % glass fiber. Because of its high strength and stiffness and toughness as well as excellent heat, chemical and abrasion resistance of this grade is often used for stressed parts. Additionally properties are very good process ability and good surface quality.

#### General

|                   |  |
|-------------------|--|
| Material Status   | • Commercial: Active   |
| Availability      | • Middle East, Europe, Asia  |
| Additive          | • 30% Filler by Weight(Glass Fiber), Heat Stabilizer                               |
| Features          | • Good Surface Finish • High Heat Stability • Good Process Ability • Oil resistant |
| Uses              | • Automotive • Electronic, Electrical Appliance • Household and Industrial Parts   |
| Appearance & Form | • Natural, Pellet  |
| Packaging         | • 25 Kg Multi-Layer Bag  |
| Processing Method | • Injection Molding  |

#### Nominal Value Unit

#### Test Method

#### Physical

|                |                             |            |
|----------------|-----------------------------|------------|
| Density        | 1.33±0.01 g/cm <sup>3</sup> | ISO 1183   |
| Filler Content | 30±2 %                      | ISO 3451-1 |

#### Mechanical

|   |                        |         |
|---|------------------------|---------|
| Tensile Modulus                         | 10000 MPa              | ISO 527 |
| Tensile Strength (5mm/min)              | ≥ 170 MPa              | ISO 527 |
| Tensile Strain (Break)                  | 3-5 %                  | ISO 527 |
| Charpy Unnotched Impact Strength (23°C) | ≥ 75 KJ/m <sup>2</sup> | ISO 179 |

#### Processing Conditions

As a guide the following temperature profile and other condition is recommended

| Zone 1    | Zone 2    | Zone 3    | Zone 4    | Die       | Drying Time | Drying Temperature |
|-----------|-----------|-----------|-----------|-----------|-------------|--------------------|
| 270-280°C | 280-285°C | 285-290°C | 285-295°C | 290-295°C | 2-4 hr.     | 90-100 °C          |

#### Shelf Life & Storage

Shelf life at proper storage is at least 18 months from production date, but in case of a long storage time, potential moisture pick-up needs to be eliminated by drying before injection. Sacks should be stored in dry/closed condition and protect from sunlight.

#### Note

This documentation is made out based on our tests and experiments in our R&D center with piled up experience and knowledge. And the values are measured on injection molded test specimens. It is suggested that this information contained in this document can be used for general indication. Therefore, you should not construe it as product specifications, and you should do appropriate test before you considering your conditions for newly applications.

Issue Date: Nov. 2019

Issue Number: 01

R&D Department