

## UBESTA 3024GU6

### Technical Product Information

UBESTA 3024GU6 is a 30% glass fiber reinforced Polyamide 12 for injection moulding application. This material has following features:

- Superior mechanical properties
- Excellent heat resistance
- Excellent moldability, easy mold release

| Basic Properties <sup>(1)</sup> | Method     | Unit              | Value     |
|---------------------------------|------------|-------------------|-----------|
| <b>Polymer</b>                  | -          | -                 | PA12      |
| <b>Colour</b>                   | -          | -                 | Natural   |
| <b>Density</b>                  | ISO 1183-3 | g/cm <sup>3</sup> | 1,24      |
| <b>Melting Point</b>            | ISO 11357  | °C                | 175 - 181 |

| Mechanical Properties <sup>(2)</sup>                   | Method      | Unit        | Value             |      |
|--------------------------------------------------------|-------------|-------------|-------------------|------|
| <b>Tensile strength</b>                                | ISO 527-1,2 | MPa         | 125               |      |
| <b>Tensile strain at break</b>                         |             | %           | 7                 |      |
| <b>Tensile modulus</b>                                 |             | MPa         | 7000              |      |
| <b>Flexural strength</b>                               | ISO 178     | MPa         | 185               |      |
| <b>Flexural modulus</b>                                |             | MPa         | 5800              |      |
| <b>Charpy impact strength (notched) <sup>(3)</sup></b> | 23 °C       | ISO 179/1eA | kJ/m <sup>2</sup> | 28 C |
|                                                        | -40 °C      |             | kJ/m <sup>2</sup> | 15 C |

| Thermal Properties <sup>(2)</sup>      | Method      | Unit                  | Value |     |
|----------------------------------------|-------------|-----------------------|-------|-----|
| <b>Temp. of deflection under load</b>  | ISO 75-2    | 0,45 MPa              | °C    | 177 |
|                                        |             | 1,80 MPa              | °C    | 160 |
| <b>Coefficient of linear expansion</b> | ISO 11359-2 | x 10 <sup>-4</sup> /K | 0,3   |     |

| Others <sup>(4)</sup>    | Method     | Unit | Value |     |
|--------------------------|------------|------|-------|-----|
| <b>Molding shrinkage</b> | UBE Method | MD   | %     | 0,2 |
|                          |            | TD   | %     | 0,8 |

Note: All tests carried dry as mould

(1) Measured on pellets

(2) Measured on injection-moulded specimens, based on ISO type

(3) P=partial break, C=complete break

(4) Sample dimension is 30×100×3mm



## Processing conditions

|                         | Cylinder |         |           |           |           | Die       |
|-------------------------|----------|---------|-----------|-----------|-----------|-----------|
|                         | Hopper   | Zone 1  | Zone 2    | Zone 3    | Zone 4    |           |
| <b>Temperature (°C)</b> | 40 - 120 | 210-230 | 230 - 250 | 240 - 260 | 240 - 260 | 240 - 260 |

## Drying conditions

UBESTA is supplied dry (moisture content < 0,1%) and packed in high barrier films. However, as polyamide is a hygroscopic material, the user should take a special care of the possible moisture absorption once the bag or liner box has been opened. In case of moisture absorption, the material should be dried with dehumidified air at 80°C for more than 4 hours.

## Storage

Well-sealed packages could be stored in cool and dry conditions over long periods of time. Protect the packages from heat and direct sunlight to prevent possible damages.

