

# UBE Nylon 3030JI46

Polyamide 12



## General

|                                    |   |
|------------------------------------|---|
| Generic identification and marking | PA12-IP   |
| Market example                     | General   |
| Application example                | Electrical & Electronics, Consumer Electronics, General           |
| Processing example                 | Tube molding  |
| Elemental Technology               | Impact resistant, Heat resistant, Weather resistant, Single layer |
| Production area                    | Japan   |
| Development product                | Not applicable  |

## Mechanical property

|                                | Unit              | Test standard | Typical value |
|--------------------------------|-------------------|---------------|---------------|
| Tensile strength               | MPa               | ISO527-1,2    | >20           |
| Tensile strain at break        | %                 | ISO527-1,2    | >150          |
| Tensile modulus                | MPa               | ISO527-1,2    | 210           |
| Flexural strength              | MPa               | ISO178        | 10            |
| Flexural modulus               | MPa               | ISO178        | 200           |
| Charpy notched impact strength | kJ/m <sup>2</sup> | ISO179-1/1eA  | 96            |
| Rockwell hardness (R scale)    | -                 | ISO2039       | 21            |
| Shore D hardness               | -                 | ISO868        | 58            |

## Thermal property

|   | Unit                 | Test standard | Typical value |
|---|----------------------|---------------|---------------|
| Temperature of deflection under load at 0.45MPa | °C                   | ISO75-1,2     | 68            |
| Temperature of deflection under load at 1.8MPa  | °C                   | ISO75-1,2     | 43            |
| Coefficient of linear thermal expansion         | x10 <sup>-5</sup> /K | ISO11359-2    | 19.0          |

## Electrical property

|                    | Unit   | Test standard | Typical value    |
|--------------------|--------|---------------|------------------|
| Volume resistivity | Ω · cm | IEC60093      | 10 <sup>10</sup> |

## Molding property

|                    | Unit | Test standard | Typical value |
|--------------------|------|---------------|---------------|
| Mold shrinkage(MD) | %    | ISO 294-4 D-2 | 1.0           |
| Mold shrinkage(TD) | %    | ISO 294-4 D-2 | 1.5           |

## Other property

|         | Unit              | Test standard | Typical value |
|---------|-------------------|---------------|---------------|
| Density | g/cm <sup>3</sup> | ISO1183       | 1.00          |

## Remarks

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\* The data described herein are averaged values obtained by specified measurement: they are not guaranteed figures.

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