

UBE Nylon 1022B

Polyamide 6



General

| | |
|------------------------------------|---|
| Generic identification and marking | PA6 |
| Market example | Automotive, Industrial, General |
| Application example | Interior, Building • Construction, Transportation |
| Processing example | Injection molding |
| Elemental Technology | Neat resin |
| Production area | Japan, Thailand, Spain |
| Development product | Not applicable |

Mechanical property

| | Unit | Test standard | Typical value |
|---|-------------------|---------------|---------------|
| Tensile strength | MPa | ISO527-1,2 | 80 |
| Tensile strain at break | % | ISO527-1,2 | >50 |
| Tensile modulus | MPa | ISO527-1,2 | 2800 |
| Flexural strength | MPa | ISO178 | 110 |
| Flexural modulus | MPa | ISO178 | 2700 |
| Charpy notched impact strength | kJ/m ² | ISO179-1/1eA | 7 |
| Tensile strength after moisture absorption | MPa | ISO527-1,2 | 35 |
| Tensile modulus after moisture absorption | MPa | ISO527-1,2 | 800 |
| Tensile strain at break after moisture absorption | % | ISO527-1,2 | >50 |
| Flexural strength after moisture absorption | MPa | ISO178 | 33 |
| Flexural modulus after moisture absorption | MPa | ISO178 | 700 |
| Rockwell hardness (R scale) | - | ISO2039 | 120 |
| Rockwell hardness (M scale) | - | ISO2039 | 80 |
| Rockwell hardness (R scale) after moisture absorption | - | ISO2039 | 93 |
| Rockwell hardness (M scale) after moisture absorption | - | ISO2039 | 35 |

Thermal property

| | Unit | Test standard | Typical value |
|---|----------------------|---------------|---------------|
| Melting temperature | °C | ISO11357 | 215-225 |
| Temperature of deflection under load at 0.45MPa | °C | ISO75-1,2 | 145 |
| Temperature of deflection under load at 1.8MPa | °C | ISO75-1,2 | 60 |
| Coefficient of linear thermal expansion | x10 ⁻⁵ /K | ISO11359-2 | 8.0 |

Electrical property

| | Unit | Test standard | Typical value |
|-----------------------------|-------|---------------|---------------|
| Dielectric strength | kV/mm | IEC60243-1 | 20 |
| Arc resistance | sec | ASTMD495 | 118 |
| Comparative Tracking Index | - | UL746A | 0 |
| Dielectric constant | - | IEC60250 | 3.5 |
| Dielectric constant (1 MHz) | - | ASTMD150 | 3.5 |
| Dissipation factor (1 MHz) | - | ASTMD150 | 20 |

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| Molding property | Unit | Test standard | Typical value |
|------------------|------|---------------|---------------|
|------------------|------|---------------|---------------|

| Other property | Unit | Test standard | Typical value |
|---------------------------------|-------------------|---------------|---------------|
| Density | g/cm ³ | ISO1183 | 1.14 |
| Water absorption at equilibrium | % | UBE Method | 3.0 |

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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