

## UNITIKA NYLON6

**Type : Mineral-filled (30%) nylon**

| Property | Standard | Unit | A 3 0 3 0 N - 2 |       |
|----------|----------|------|-----------------|-------|
|          |          |      | Dry             | Cond. |

### **Mechanical properties**

|                                |                    |                   |      |      |
|--------------------------------|--------------------|-------------------|------|------|
| Tensile stress at yield        | ISO 527-1<br>527-2 | MPa               |      |      |
| Tensile stress at break        |                    |                   | 75   | 49   |
| Tensile modulus                |                    | MPa               | 5400 | 2000 |
| Tensile strain at yield        |                    | %                 |      |      |
| Tensile strain at break        |                    |                   | 4.5  | 13   |
| Flexural strength              | ISO 178            | MPa               | 125  | 52   |
| Flexural modulus               |                    | MPa               | 4700 | 2000 |
| Charpy impact strength         | ISO 179-1          | kJ/m <sup>2</sup> | 50   | 52   |
| Charpy notched impact strength |                    |                   | 4    | 7    |
| Rockwell Hardness (R Scale)    | ISO 2039           |                   |      |      |

### **Thermal properties**

|                                           |                  |                    |     |  |
|-------------------------------------------|------------------|--------------------|-----|--|
| Coefficient of linear thermal expansion   | ISO 11359-2      | 10 <sup>-5</sup> / | 6.0 |  |
| Deflection Temperature under load 1.8MPa  | ISO 75-1<br>75-2 |                    | 108 |  |
| Deflection Temperature under load 0.45MPa |                  |                    | 194 |  |

### **Electrical properties**

|                                             |             |      |  |  |
|---------------------------------------------|-------------|------|--|--|
| Volume resistivity                          | IEC 60093   | -m   |  |  |
| Electric strength      Thickness: 1mm       | IEC 60243-1 | MV/m |  |  |
| Dielectric constant      10 <sup>6</sup> Hz | IEC 60250   |      |  |  |
| Dissipation factor      10 <sup>6</sup> Hz  | IEC 60250   |      |  |  |
| Comparative tracking Index                  | IEC 60112   |      |  |  |

### **Other properties**

|                                                                 |          |                   |             |     |
|-----------------------------------------------------------------|----------|-------------------|-------------|-----|
| Density                                                         | ISO 1183 | g/cm <sup>3</sup> | 1.43        |     |
| Water absorption 23 in water 24h<br>23 /50%RH equilibrium       | ISO 62   | %                 | 1.9         |     |
| Mold shrinkage      flow<br>(Thickness : 3.2mm)      transverse |          | %                 | 0.7         | 0.8 |
| Flammability                                                    | UL-94    |                   | 0.85mmt V-2 |     |

Dry: dry-as-mold condition

Cond.: conditioned to equilibrium at 23 50%RH

The data listed here are typical of average lots and not guaranteed values .