

# WELLAMID Nylon 6000/42

Polyamide 6

CP-Polymer-Technik GmbH & Co. KG

Message:

WELLAMID Nylon 6000/42 is a Polyamide 6 (Nylon 6) material. It is available in Europe.

Important attributes of WELLAMID Nylon 6000/42 are:

Flame Rated

Impact Modified

| General Information                             |             |                 |                   |              |
|-------------------------------------------------|-------------|-----------------|-------------------|--------------|
| Additive                                        |             | Impact Modifier |                   |              |
| Features                                        |             | Impact Modified |                   |              |
| Physical                                        | Dry         | Conditioned     | Unit              | Test Method  |
| Density                                         | 1.10        | --              | g/cm <sup>3</sup> | ISO 1183     |
| Molding Shrinkage                               |             |                 |                   | ISO 294-4    |
| Across Flow : 4.00 mm                           | 0.80 to 1.2 | --              | %                 |              |
| Flow : 4.00 mm                                  | 0.80 to 1.2 | --              | %                 |              |
| Water Absorption<br>(Equilibrium, 23°C, 50% RH) | 2.5 to 3.3  | --              | %                 | ISO 62       |
| Mechanical                                      | Dry         | Conditioned     | Unit              | Test Method  |
| Tensile Modulus                                 | 2300        | 1000            | MPa               | ISO 527-2    |
| Tensile Stress (Yield)                          | 60.0        | 40.0            | MPa               | ISO 527-2/50 |
| Tensile Strain                                  |             |                 |                   | ISO 527-2/50 |
| Yield                                           | 4.0         | 20              | %                 |              |
| Break                                           | > 50        | > 50            | %                 |              |
| Flexural Modulus                                | 1800        | --              | MPa               | DIN 52457    |
| Impact                                          | Dry         | Conditioned     | Unit              | Test Method  |
| Charpy Notched Impact<br>Strength (23°C)        | 11          | 28              | kJ/m <sup>2</sup> | ISO 179      |
| Charpy Unnotched Impact<br>Strength (23°C)      | No Break    | No Break        |                   | ISO 179      |
| Thermal                                         | Dry         | Conditioned     | Unit              | Test Method  |
| Heat Deflection Temperature                     |             |                 |                   |              |
| 0.45 MPa, Unannealed                            | 130         | --              | °C                | ISO 75-2/B   |
| 1.8 MPa, Unannealed                             | 50.0        | --              | °C                | ISO 75-2/A   |
| Vicat Softening<br>Temperature                  | 170         | --              | °C                | ISO 306/B50  |
| Melting Temperature                             | 215         | --              | °C                |              |
| CLTE - Flow (23 to 80°C)                        | 9.0E-5      | --              | cm/cm/°C          | DIN 53752    |
| Electrical                                      | Dry         | Conditioned     | Unit              | Test Method  |
| Surface Resistivity                             | 1.0E+13     | 1.0E+10         | ohms              | IEC 60093    |
| Volume Resistivity                              | 1.0E+15     | 1.0E+12         | ohms · cm         | IEC 60093    |

|                               |              |             |       |             |
|-------------------------------|--------------|-------------|-------|-------------|
| Electric Strength             | 32           | 35          | kV/mm | IEC 60243-1 |
| Relative Permittivity (1 MHz) | 3.50         | 6.00        |       | IEC 60250   |
| Dissipation Factor (1 MHz)    | 0.024        | 0.25        |       | IEC 60250   |
| Comparative Tracking Index    | 600          | --          | V     | IEC 60112   |
| Flammability                  | Dry          | Conditioned | Unit  | Test Method |
| Flame Rating                  |              |             |       | UL 94       |
| 1.60 mm                       | HB           | --          |       |             |
| 3.20 mm                       | HB           | --          |       |             |
| Injection                     | Dry          | Unit        |       |             |
| Processing (Melt) Temp        | 245 to 265   |             | °C    |             |
| Mold Temperature              | 40.0 to 80.0 |             | °C    |             |
| Injection Rate                | Moderate     |             |       |             |

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