

# NILAMID® B3 W M30

Polyamide 6

Nilit Plastics

## Message:

NILAMID® B3 W M30 is a Polyamide 6 (Nylon 6) compound, 30% mineral filled, heat stabilized, UL listed HB. This compound is intended for injection molding. NILAMID® B3 W M30 is primarily designed for the Automotive industry. It is also suitable for Electrical and Electronic or Industrial & Consumer applications.

| General Information              |                                    |                   |                   |
|----------------------------------|------------------------------------|-------------------|-------------------|
| UL YellowCard                    | E331274-100305906                  | E86034-251979     | E172252-101977623 |
| Filler / Reinforcement           | Mineral,30% Filler by Weight       |                   |                   |
| Additive                         | Heat Stabilizer                    |                   |                   |
| Features                         | Heat Stabilized                    |                   |                   |
| Uses                             | Automotive Applications            |                   |                   |
|                                  | Consumer Applications              |                   |                   |
|                                  | Electrical/Electronic Applications |                   |                   |
|                                  | Industrial Applications            |                   |                   |
| Processing Method                | Injection Molding                  |                   |                   |
| Physical                         | Nominal Value                      | Unit              | Test Method       |
| Density (23°C)                   | 1.38                               | g/cm <sup>3</sup> | ISO 1183          |
| Molding Shrinkage                |                                    |                   | ISO 294-4         |
| Across Flow : 23°C               | 0.70                               | %                 |                   |
| Flow : 23°C                      | 0.70                               | %                 |                   |
| Water Absorption                 |                                    |                   | ISO 62            |
| 23°C, 24 hr                      | 2.0                                | %                 |                   |
| Saturation, 23°C                 | 6.5                                | %                 |                   |
| Mechanical                       | Nominal Value                      | Unit              | Test Method       |
| Tensile Modulus (23°C)           | 6200                               | MPa               | ISO 527-2         |
| Tensile Stress (Yield, 23°C)     | 65.0                               | MPa               | ISO 527-2         |
| Tensile Strain (Break, 23°C)     | 4.0                                | %                 | ISO 527-2         |
| Impact                           | Nominal Value                      | Unit              | Test Method       |
| Charpy Notched Impact Strength   |                                    |                   | ISO 179/1eA       |
| -30°C                            | 2.5                                | kJ/m <sup>2</sup> |                   |
| 23°C                             | 2.5                                | kJ/m <sup>2</sup> |                   |
| Charpy Unnotched Impact Strength |                                    |                   | ISO 179/1eU       |
| 23°C                             | 35                                 | kJ/m <sup>2</sup> |                   |
| 30°C                             | 37                                 | kJ/m <sup>2</sup> |                   |
| Thermal                          | Nominal Value                      | Unit              | Test Method       |
| Heat Deflection Temperature      |                                    |                   |                   |

| 0.45 MPa, Unannealed                             | 200           | °C      | ISO 75-2/B     |
|--------------------------------------------------|---------------|---------|----------------|
| 1.8 MPa, Unannealed                              | 180           | °C      | ISO 75-2/A     |
| Continuous Use Temperature <sup>1</sup>          | 115           | °C      | IEC 60216      |
| Ball Pressure Test                               |               |         | IEC 60695-10-2 |
| 125°C                                            | Pass          |         |                |
| 165°C                                            | Pass          |         |                |
| Electrical                                       | Nominal Value | Unit    | Test Method    |
| Surface Resistivity <sup>2</sup>                 | 1.0E+12       | ohms    | IEC 60093      |
| Volume Resistivity (23°C)                        | 1.0E+15       | ohms·cm | IEC 60093      |
| Comparative Tracking Index (3.20 mm, Solution A) | 500           | V       | IEC 60112      |
| Flammability                                     | Nominal Value | Unit    | Test Method    |
| Flame Rating                                     |               |         | UL 94          |
| 0.800 mm                                         | HB            |         |                |
| 1.60 mm                                          | HB            |         |                |
| 3.20 mm                                          | HB            |         |                |
| NOTE                                             |               |         |                |
| 1.                                               | 20000 hr      |         |                |
| 2.                                               | 23°C          |         |                |

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