

# Amilan® CM1003G30

Polyamide 6  
Toray Resin Company

Message:

Amilan® CM1003G30 is a Polyamide 6 (Nylon 6) product filled with 30% glass fiber. It is available in Asia Pacific, Europe, or North America.  
Characteristics include:  
Flame Rated  
Wear Resistant

| General Information                              |                                  |                   |                 |
|--------------------------------------------------|----------------------------------|-------------------|-----------------|
| Filler / Reinforcement                           | Glass Fiber,30% Filler by Weight |                   |                 |
| Features                                         | Good Abrasion Resistance         |                   |                 |
| Part Marking Code                                | >PA6-GF30+XD<                    |                   |                 |
| Physical                                         | Nominal Value                    | Unit              | Test Method     |
| Density (23°C)                                   | 1.37                             | g/cm <sup>3</sup> | ISO 1183        |
| Molding Shrinkage                                |                                  |                   | Internal Method |
| Across Flow : 3.00 mm <sup>1</sup>               | 0.50 to 0.80                     | %                 |                 |
| Flow : 3.00 mm <sup>2</sup>                      | 0.20 to 0.40                     | %                 |                 |
| Water Absorption                                 |                                  |                   | ISO 62          |
| 23°C, 24 hr                                      | 1.1                              | %                 |                 |
| Saturation, 23°C                                 | 6.4                              | %                 |                 |
| Hardness                                         | Nominal Value                    | Unit              | Test Method     |
| Rockwell Hardness (R-Scale, 23°C)                | 120                              |                   | ISO 2039-2      |
| Mechanical                                       | Nominal Value                    | Unit              | Test Method     |
| Tensile Stress (23°C)                            | 160                              | MPa               | ISO 527-2       |
| Tensile Strain (Break, 23°C)                     | 2.5                              | %                 | ISO 527-2       |
| Flexural Modulus (23°C)                          | 9000                             | MPa               | ISO 178         |
| Flexural Stress (23°C)                           | 230                              | MPa               | ISO 178         |
| Taber Abrasion Resistance (1000 Cycles)          | 24.0                             | mg                | ISO 9352        |
| Coefficient of Friction - vs. Metal <sup>3</sup> | 0.200                            |                   | Suzuki Method   |
| Impact                                           | Nominal Value                    | Unit              | Test Method     |
| Charpy Notched Impact Strength (23°C)            | 12                               | kJ/m <sup>2</sup> | ISO 179         |
| Thermal                                          | Nominal Value                    | Unit              | Test Method     |
| Heat Deflection Temperature                      |                                  |                   |                 |
| 0.45 MPa, Unannealed                             | 224                              | °C                | ISO 75-2/B      |
| 1.8 MPa, Unannealed                              | 215                              | °C                | ISO 75-2/A      |
| Melting Temperature                              | 225                              | °C                | DSC             |
| CLTE - Flow                                      | 2.0E-5 to 3.0E-5                 | cm/cm/°C          | ISO 11359-2     |
| Flammability                                     | Nominal Value                    |                   | Test Method     |
| Flame Rating                                     | HB                               |                   | UL 94           |
| NOTE                                             |                                  |                   |                 |

|    |                     |
|----|---------------------|
| 1. | 80x80x3             |
| 2. | 80x80x3mm           |
| 3. | Without Lubrication |

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