

# Grilon® TSGZ-15/4

Polyamide 66/6 Copolymer

EMS-GRIVORY

## Message:

Grilon® TSGZ-15/4 is a Polyamide 66/6 Copolymer (Nylon 66/6) material filled with 15% glass fiber. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of Grilon® TSGZ-15/4 are:

Flame Rated

RoHS Compliant

Impact Modified

Typical applications include:

Automotive

Electrical/Electronic Applications

Appliances

Consumer Goods

Engineering/Industrial Parts

| General Information    |      |                                    |                   |             |
|------------------------|------|------------------------------------|-------------------|-------------|
| Filler / Reinforcement |      | Glass Fiber,15% Filler by Weight   |                   |             |
| Additive               |      | Impact Modifier                    |                   |             |
| Features               |      | Impact Modified                    |                   |             |
| Uses                   |      | Appliance Components               |                   |             |
|                        |      | Automotive Applications            |                   |             |
|                        |      | Automotive Interior Parts          |                   |             |
|                        |      | Connectors                         |                   |             |
|                        |      | Consumer Applications              |                   |             |
|                        |      | Electrical/Electronic Applications |                   |             |
|                        |      | Engineering Parts                  |                   |             |
|                        |      | Household Goods                    |                   |             |
|                        |      | Industrial Applications            |                   |             |
|                        |      | Power/Other Tools                  |                   |             |
|                        |      | Sporting Goods                     |                   |             |
| RoHS Compliance        |      | RoHS Compliant                     |                   |             |
| Forms                  |      | Granules                           |                   |             |
| Processing Method      |      | Injection Molding                  |                   |             |
| Physical               | Dry  | Conditioned                        | Unit              | Test Method |
| Density                | 1.20 | --                                 | g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage      |      |                                    |                   | ISO 294-4   |
| Across Flow            | 0.70 | --                                 | %                 |             |
| Flow                   | 0.10 | --                                 | %                 |             |
| Water Absorption       |      |                                    |                   | ISO 62      |
| Saturation, 23°C       | 7.0  | --                                 | %                 |             |

| Equilibrium, 23°C, 50% RH              | 2.0                          | --          | %                 |                      |
|----------------------------------------|------------------------------|-------------|-------------------|----------------------|
| Mechanical                             | Dry                          | Conditioned | Unit              | Test Method          |
| Tensile Modulus                        | 5800                         | 3100        | MPa               | ISO 527-2            |
| Tensile Stress                         |                              |             |                   | ISO 527-2            |
| Yield                                  | --                           | 70.0        | MPa               |                      |
| Break                                  | 110                          | 65.0        | MPa               |                      |
| Tensile Strain                         |                              |             |                   | ISO 527-2            |
| Yield                                  | --                           | 5.0         | %                 |                      |
| Break                                  | 4.0                          | --          | %                 |                      |
| Nominal Tensile Strain at Break        | --                           | 10          | %                 | ISO 527-2            |
| Impact                                 | Dry                          | Conditioned | Unit              | Test Method          |
| Charpy Notched Impact Strength         |                              |             |                   | ISO 179/1eA          |
| -30°C                                  | 5.0                          | 5.0         | kJ/m <sup>2</sup> |                      |
| 23°C                                   | 11                           | 16          | kJ/m <sup>2</sup> |                      |
| Charpy Unnotched Impact Strength       |                              |             |                   | ISO 179/1eU          |
| -30°C                                  | 60                           | 70          | kJ/m <sup>2</sup> |                      |
| 23°C                                   | 70                           | 85          | kJ/m <sup>2</sup> |                      |
| Thermal                                | Dry                          | Conditioned | Unit              | Test Method          |
| Heat Deflection Temperature            |                              |             |                   |                      |
| 1.8 MPa, Unannealed                    | 225                          | --          | °C                | ISO 75-2/A           |
| 8.0 MPa, Unannealed                    | 65.0                         | --          | °C                | ISO 75-2/C           |
| Continuous Use Temperature             |                              |             |                   | Internal Method      |
| -- <sup>1</sup>                        | 90.0 to 120                  | --          | °C                |                      |
| -- <sup>2</sup>                        | 160                          | --          | °C                |                      |
| Melting Temperature <sup>3</sup>       | 260                          | --          | °C                | ISO 11357-3          |
| CLTE                                   |                              |             |                   | ISO 11359-2          |
| Flow                                   | 2.0E-5                       | --          | cm/cm/°C          |                      |
| Transverse                             | 1.1E-4                       | --          | cm/cm/°C          |                      |
| Electrical                             | Dry                          | Conditioned | Unit              | Test Method          |
| Surface Resistivity                    | --                           | 1.0E+10     | ohms              | IEC 60093            |
| Volume Resistivity                     | 1.0E+13                      | 1.0E+11     | ohms·cm           | IEC 60093            |
| Electric Strength                      | 30                           | 27          | kV/mm             | IEC 60243-1          |
| Comparative Tracking Index             | 600                          | 600         | V                 | IEC 60112            |
| Flammability                           | Dry                          | Conditioned | Unit              | Test Method          |
| Flammability Classification (0.800 mm) | HB                           | --          |                   | IEC 60695-11-10, -20 |
| Additional Information                 | Dry                          | Conditioned |                   | Test Method          |
| ISO Type                               | PA66+PA6-Hi,MHR,14-060N,GF15 |             |                   | ISO 1874             |

## NOTE

- |    |            |
|----|------------|
| 1. | Long Term  |
| 2. | Short Term |
| 3. | 10°C/min   |

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