

# Grivory® HT1V-5 FWA nat

Polyamide 6I/6T Copolymer

EMS-GRIVORY

Message:

Grivory® HT1V-5 FWA nat is a Polyamide 6I/6T Copolymer (Nylon 6I/6T) material filled with 50% glass fiber. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of Grivory® HT1V-5 FWA nat are:

Flame Rated

RoHS Compliant

Food Contact Acceptable

Heat Resistant

Typical applications include:

Plumbing/Piping/Potable Water

Food Contact Applications

Consumer Goods

Household Applications

Industrial Applications

| General Information    |     |                                      |      |             |
|------------------------|-----|--------------------------------------|------|-------------|
| UL YellowCard          |     | E53898-101096146                     |      |             |
| Filler / Reinforcement |     | Glass Fiber,50% Filler by Weight     |      |             |
| Features               |     | Food Contact Acceptable              |      |             |
|                        |     | High Heat Resistance                 |      |             |
|                        |     | Hydrolysis Resistant                 |      |             |
| Uses                   |     | Consumer Applications                |      |             |
|                        |     | Household Goods                      |      |             |
|                        |     | Industrial Applications              |      |             |
|                        |     | Medical Devices                      |      |             |
| Agency Ratings         |     | ACS Unspecified Rating               |      |             |
|                        |     | DVGW W270                            |      |             |
|                        |     | EU Food Contact, Unspecified Rating  |      |             |
|                        |     | FDA Food Contact, Unspecified Rating |      |             |
|                        |     | KTW Unspecified Rating               |      |             |
|                        |     | NSF 51                               |      |             |
|                        |     | NSF 61                               |      |             |
|                        |     | WRAS Unspecified Rating              |      |             |
| RoHS Compliance        |     | RoHS Compliant                       |      |             |
| Appearance             |     | Natural Color                        |      |             |
| Forms                  |     | Granules                             |      |             |
| Processing Method      |     | Injection Molding                    |      |             |
| Physical               | Dry | Conditioned                          | Unit | Test Method |

|                                  |         |             |                   |                 |
|----------------------------------|---------|-------------|-------------------|-----------------|
| Density                          | 1.65    | --          | g/cm <sup>3</sup> | ISO 1183        |
| Molding Shrinkage                |         |             |                   | ISO 294-4       |
| Across Flow                      | 0.50    | --          | %                 |                 |
| Flow                             | 0.10    | --          | %                 |                 |
| Water Absorption                 |         |             |                   | ISO 62          |
| Saturation, 23°C                 | 3.0     | --          | %                 |                 |
| Equilibrium, 23°C, 50% RH        | 1.3     | --          | %                 |                 |
| Hardness                         | Dry     | Conditioned | Unit              | Test Method     |
| Ball Indentation Hardness        | 340     | 340         | MPa               | ISO 2039-1      |
| Mechanical                       | Dry     | Conditioned | Unit              | Test Method     |
| Tensile Modulus                  | 18000   | 17500       | MPa               | ISO 527-2       |
| Tensile Stress (Break)           | 250     | 240         | MPa               | ISO 527-2       |
| Tensile Strain (Break)           | 2.0     | 2.0         | %                 | ISO 527-2       |
| Impact                           | Dry     | Conditioned | Unit              | Test Method     |
| Charpy Notched Impact Strength   |         |             |                   | ISO 179/1eA     |
| -30°C                            | 10      | 10          | kJ/m <sup>2</sup> |                 |
| 23°C                             | 11      | 11          | kJ/m <sup>2</sup> |                 |
| Charpy Unnotched Impact Strength |         |             |                   | ISO 179/1eU     |
| -30°C                            | 80      | 80          | kJ/m <sup>2</sup> |                 |
| 23°C                             | 80      | 80          | kJ/m <sup>2</sup> |                 |
| Thermal                          | Dry     | Conditioned | Unit              | Test Method     |
| Heat Deflection Temperature      |         |             |                   |                 |
| 1.8 MPa, Unannealed              | 285     | --          | °C                | ISO 75-2/A      |
| 8.0 MPa, Unannealed              | 175     | --          | °C                | ISO 75-2/C      |
| Continuous Use Temperature       |         |             |                   | Internal Method |
| -- <sup>1</sup>                  | 140     | --          | °C                |                 |
| -- <sup>2</sup>                  | 250     | --          | °C                |                 |
| Melting Temperature <sup>3</sup> | 325     | --          | °C                | ISO 11357-3     |
| CLTE                             |         |             |                   | ISO 11359-2     |
| Flow                             | 1.5E-5  | --          | cm/cm/°C          |                 |
| Transverse                       | 4.0E-5  | --          | cm/cm/°C          |                 |
| Electrical                       | Dry     | Conditioned | Unit              | Test Method     |
| Surface Resistivity              | --      | 1.0E+12     | ohms              | IEC 60093       |
| Volume Resistivity               | 1.0E+13 | 1.0E+13     | ohms·cm           | IEC 60093       |
| Electric Strength                | 35      | 35          | kV/mm             | IEC 60243-1     |
| Comparative Tracking Index       | --      | 600         | V                 | IEC 60112       |
| Flammability                     | Dry     | Conditioned | Unit              | Test Method     |

|                                           |                           |             |                      |
|-------------------------------------------|---------------------------|-------------|----------------------|
| Flammability Classification<br>(0.800 mm) | HB                        | --          | IEC 60695-11-10, -20 |
| Additional Information                    | Dry                       | Conditioned | Test Method          |
| ISO Type                                  | PA6T/6I, MH, 12-190, GF50 | --          | ISO 1874             |
| NOTE                                      |                           |             |                      |
| 1.                                        | Long Term                 |             |                      |
| 2.                                        | Short Term                |             |                      |
| 3.                                        | 10°C/min                  |             |                      |

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