

# DOMAMID® 6FC

Polyamide 6

DOMO Engineering Plastics SPA

## Message:

Polyamide 6, general purpose, for injection moulding. Food contact compliant

| General Information                        |             |                         |                        |              |
|--------------------------------------------|-------------|-------------------------|------------------------|--------------|
| UL YellowCard                              |             | E170540-225449          |                        |              |
| Features                                   |             | Food Contact Acceptable |                        |              |
|                                            |             | General Purpose         |                        |              |
| Uses                                       |             | General Purpose         |                        |              |
| Processing Method                          |             | Injection Molding       |                        |              |
| Physical                                   | Dry         | Conditioned             | Unit                   | Test Method  |
| Density                                    | 1.14        | --                      | g/cm <sup>3</sup>      | ISO 1183     |
| Melt Volume-Flow Rate (MVR) (275°C/5.0 kg) | 165         | --                      | cm <sup>3</sup> /10min | ISO 1133     |
| Molding Shrinkage <sup>1</sup>             |             |                         |                        | ISO 2577     |
| Across Flow : 23°C, 72 hr                  | 1.0 to 1.2  | --                      | %                      |              |
| Flow : 23°C, 72 hr                         | 0.90 to 1.1 | --                      | %                      |              |
| Viscosity Number                           | 145         | --                      | cm <sup>3</sup> /g     | ISO 307      |
| Hardness                                   | Dry         | Conditioned             | Unit                   | Test Method  |
| Rockwell Hardness (R-Scale)                | 120         | --                      |                        | ISO 2039-2   |
| Mechanical                                 | Dry         | Conditioned             | Unit                   | Test Method  |
| Tensile Modulus                            | 3200        | 1000                    | MPa                    | ISO 527-2/1  |
| Tensile Stress                             |             |                         |                        |              |
| Yield                                      | --          | 40.0                    | MPa                    | ISO 527-2/5  |
| Yield                                      | 80.0        | --                      | MPa                    | ISO 527-2/50 |
| Tensile Strain                             |             |                         |                        |              |
| Break                                      | --          | > 50                    | %                      | ISO 527-2/5  |
| Break                                      | 40          | --                      | %                      | ISO 527-2/50 |
| Flexural Modulus <sup>2</sup>              | 2800        | 900                     | MPa                    | ISO 178      |
| Flexural Stress <sup>3</sup>               | 105         | 35.0                    | MPa                    | ISO 178      |
| Impact                                     | Dry         | Conditioned             | Unit                   | Test Method  |
| Charpy Notched Impact Strength (23°C)      | 5.0         | --                      | kJ/m <sup>2</sup>      | ISO 179/1eA  |
| Charpy Unnotched Impact Strength (23°C)    | No Break    | No Break                |                        | ISO 179/1eU  |
| Notched Izod Impact Strength (23°C)        | 5.0         | --                      | kJ/m <sup>2</sup>      | ISO 180/1A   |

|                                                |              |             |         |                |
|------------------------------------------------|--------------|-------------|---------|----------------|
| Unnotched Izod Impact Strength (23°C)          | No Break     | No Break    |         | ISO 180/1U     |
| Thermal                                        | Dry          | Conditioned | Unit    | Test Method    |
| Heat Deflection Temperature                    |              |             |         |                |
| 0.45 MPa, Unannealed                           | 175          | --          | °C      | ISO 75-2/B     |
| 1.8 MPa, Unannealed                            | 65.0         | --          | °C      | ISO 75-2/A     |
| Vicat Softening Temperature                    | 200          | --          | °C      | ISO 306/B50    |
| Melting Temperature                            | 222          | --          | °C      | ISO 11357-3    |
| Electrical                                     | Dry          | Conditioned | Unit    | Test Method    |
| Surface Resistivity                            | 1.0E+13      | --          | ohms    | IEC 60093      |
| Volume Resistivity                             | 1.0E+15      | --          | ohms·cm | IEC 60093      |
| Comparative Tracking Index (Solution A)        | 600          | --          | V       | IEC 60112      |
| Flammability                                   | Dry          | Conditioned | Unit    | Test Method    |
| Burning Rate                                   | < 100        | --          | mm/min  | FMVSS 302      |
| Flame Rating (0.800 mm)                        | V-2          | --          |         | UL 94          |
| Glow Wire Flammability Index (1.00 to 3.00 mm) | 750 to 850   | --          | °C      | IEC 60695-2-12 |
| Injection                                      | Dry          | Unit        |         |                |
| Drying Temperature                             | 75.0 to 85.0 |             | °C      |                |
| Drying Time                                    | 2.0 to 4.0   |             | hr      |                |
| Processing (Melt) Temp                         | 230 to 250   |             | °C      |                |
| Mold Temperature                               | 60.0 to 90.0 |             | °C      |                |
| NOTE                                           |              |             |         |                |
| 1.                                             | 50% RH       |             |         |                |
| 2.                                             | 2.0 mm/min   |             |         |                |
| 3.                                             | 2.0 mm/min   |             |         |                |

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