

# EPLAMID 6 CFR 20 NC

Polyamide 6

EPSAN Plastik SAN. ve TiC. A.S.

## Message:

Polyamide 66, reinforced with 20 % of carbon fiber, heat stabilized, lubricated for injection moulding.

Eplamid 6 CFR 20 is used in all sectors of industry, offering a perfect balance of thermal and mechanical properties.

This product is available in natural and in colours on request.

| General Information                      |                                                        |                   |             |
|------------------------------------------|--------------------------------------------------------|-------------------|-------------|
| Filler / Reinforcement                   | Carbon fiber reinforced material, 20% filler by weight |                   |             |
| Additive                                 | heat stabilizer                                        |                   |             |
|                                          | Lubricant                                              |                   |             |
| Features                                 | Thermal Stability                                      |                   |             |
|                                          | Lubrication                                            |                   |             |
| Appearance                               | Available colors                                       |                   |             |
|                                          | Natural color                                          |                   |             |
| Processing Method                        | Injection molding                                      |                   |             |
| Physical                                 | Nominal Value                                          | Unit              | Test Method |
| Density (23°C)                           | 1.23 - 1.27                                            | g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage                        |                                                        |                   | ISO 294-4   |
| Vertical flow direction: 3.00mm          | 0.80                                                   | %                 | ISO 294-4   |
| Flow direction: 3.00mm                   | 0.30                                                   | %                 | ISO 294-4   |
| Moisture Content                         | 0.20                                                   | %                 | ISO 15512   |
| Ash content-CARBON FIBER (550°C -10 min) | 20.0                                                   | wt%               |             |
| Hardness                                 | Nominal Value                                          | Unit              | Test Method |
| Durometer Hardness (Shore D, 23°C)       | 84 - 88                                                |                   | ISO 868     |
| Mechanical                               | Nominal Value                                          | Unit              | Test Method |
| Tensile Modulus (23°C)                   | 6500 - 7500                                            | MPa               | ISO 527-2   |
| Tensile Stress (Break, 23°C)             | 120 - 150                                              | MPa               | ISO 527-2   |
| Tensile Strain (Break, 23°C)             | 2.0 - 4.0                                              | %                 | ISO 527-2   |
| Flexural Modulus (23°C)                  | 6000 - 7000                                            | MPa               | ISO 178     |
| Flexural Stress (23°C)                   | 130 - 160                                              | MPa               | ISO 178     |
| Impact                                   | Nominal Value                                          | Unit              | Test Method |
| Charpy Notched Impact Strength (23°C)    | 6.0 - 9.0                                              | kJ/m <sup>2</sup> | ISO 179/1eA |
| Notched Izod Impact (23°C)               | 6.0 - 9.0                                              | kJ/m <sup>2</sup> | ISO 180/1A  |
| Thermal                                  | Nominal Value                                          | Unit              | Test Method |
| Melting Temperature (DSC)                | 200 - 230                                              | °C                | ISO 3146    |

| Flammability                                                       | Nominal Value | Test Method |
|--------------------------------------------------------------------|---------------|-------------|
| Flame Rating (1.60 mm)                                             | HB            | UL 94       |
| Additional Information                                             |               |             |
| TEST CONDITIONS: Laboratory conditions are 23 ±2°C and 45-55 % RH. |               |             |
| Injection                                                          | Nominal Value | Unit        |
| Drying Temperature                                                 | 80.0          | °C          |
| Drying Time                                                        | 2.0 - 4.0     | hr          |
| Processing (Melt) Temp                                             | 260           | °C          |

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