# Chemlon® MDF50

Polyamide 6

Teknor Apex Company (Chem Polymer)

## Message:

MDF50 is a 50% glass fibre reinforced nylon 6 that offers excellent mechanical performance coupled with good surface finish.

| General Information | | | | |
|---|---|---|---|---|
| Filler / Reinforcement | Glass fiber reinforced material, 50% filler by weight | | | |
| Features | Excellent appearance | | | |
| Processing Method | Injection molding | | | |
| **Physical** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Density | 1.56 | -- | g/cm³ | ISO 1183 |
| Molding Shrinkage [1] | 0.40 - 0.90 | -- | % | Internal method |
| Water Absorption (Equilibrium, 23°C, 50% RH) | 1.5 | -- | % | ISO 62 |
| **Mechanical** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Tensile Modulus | 14400 | 10400 | MPa | ISO 527-2 |
| Tensile Stress | 220 | 160 | MPa | ISO 527-2 |
| Tensile Strain (Break) | 3.0 | 5.0 | % | ISO 527-2 |
| Flexural Modulus | 12500 | 9000 | MPa | ISO 178 |
| Flexural Stress | 320 | 230 | MPa | ISO 178 |
| **Impact** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Notched Izod Impact | 18 | 20 | kJ/m² | ISO 180/A |
| **Electrical** | **Dry** | **Conditioned** | **Unit** | **Test Method** |
| Surface Resistivity | 1.0E+15 | 1.0E+12 | ohms | IEC 60093 |
| Volume Resistivity | 1.0E+17 | 1.0E+14 | ohms·cm | IEC 60093 |
| Dielectric Strength (3.00 mm) | 11 | 8.0 | kV/mm | IEC 60243-1 |
| Comparative Tracking Index | 600 | -- | V | IEC 60112 |
| **Injection** | **Dry** | **Unit** | | |
| Drying Temperature | 80.0 | | °C | |
| Drying Time | 2.0 | | hr | |
| Rear Temperature | 250 - 295 | | °C | |
| Middle Temperature | 250 - 295 | | °C | |
| Front Temperature | 250 - 295 | | °C | |
| Processing (Melt) Temp | 275 - 300 | | °C | |
| Mold Temperature | 80.0 - 90.0 | | °C | |
| Injection Rate | Fast | | | |
| Back Pressure | Low | | | |
| Screw Speed | Moderate | | | |

| Injection instructions |
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| No drying is necessary unless the material has been exposed to air for longer than three hours. The appearance of splash marks on the surface of mouldings indicates excessive moisture is present. |

| NOTE | |
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| 1. | Mould shrinkage is significantly influenced by many factors including wall thickness, gating, moulding shape and processing conditions. The range values given are determined from specimen bar mouldings of 1.5mm to 4mm wall thickness. They are provided as a guide for comparison purposes only and no guarantee should be inferred from their inclusion. (Specimens measured in the dry state, 24 hours after moulding). |



## Recommended distributors for this material

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