



# Chemlon® 104

Teknor Apex Company - Polyamide 66

## General Information

### General

|                           |                                                       |                            |                 |
|---------------------------|-------------------------------------------------------|----------------------------|-----------------|
| Material Status           | • Commercial: Active                                  |                            |                 |
| Availability              | • Asia Pacific                                        | • Europe                   | • North America |
| Features                  | • General Purpose                                     | • Medium Impact Resistance |                 |
| Automotive Specifications | • STELLANTIS MS-DB-41 CPN3992 Color: WL5 <sup>1</sup> |                            |                 |
| Forms                     | • Pellets                                             |                            |                 |
| Processing Method         | • Injection Molding                                   |                            |                 |

## ASTM & ISO Properties <sup>2</sup>

| Physical                                                 | Nominal Value | Unit                  | Test Method |
|----------------------------------------------------------|---------------|-----------------------|-------------|
| Density                                                  | 1.11          | g/cm <sup>3</sup>     | ISO 1183    |
| Molding Shrinkage                                        | 1.8 to 3.2    | %                     | ISO 2577    |
| Mechanical                                               | Nominal Value | Unit                  | Test Method |
| Tensile Stress                                           | > 8990        | psi                   | ISO 527     |
| Tensile Strain (Break)                                   | 35            | %                     | ISO 527     |
| Flexural Modulus                                         | 321000        | psi                   | ISO 178/A   |
| Flexural Stress                                          | 10400         | psi                   | ISO 178/A   |
| Impact                                                   | Nominal Value | Unit                  | Test Method |
| Notched Izod Impact Strength (73°F)                      | > 5.0         | ft-lb/in <sup>2</sup> | ISO 180/A   |
| Thermal                                                  | Nominal Value | Unit                  | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed)   | 415           | °F                    | ISO 75-2/B  |
| Deflection Temperature Under Load<br>264 psi, Unannealed | 174           | °F                    | ISO 75-2/A  |
| Melting Temperature                                      | 495           | °F                    | DSC         |
| CLTE - Flow                                              | 3.9E-5        | in/in/°F              | ASTM D696   |
| RTI Elec                                                 |               |                       | UL 746B     |
| 0.03 in                                                  | 149           | °F                    |             |
| 0.06 in                                                  | 149           | °F                    |             |
| 0.12 in                                                  | 149           | °F                    |             |
| RTI Imp                                                  |               |                       | UL 746B     |
| 0.03 in                                                  | 149           | °F                    |             |
| 0.06 in                                                  | 149           | °F                    |             |
| 0.12 in                                                  | 149           | °F                    |             |
| RTI Str                                                  |               |                       | UL 746B     |
| 0.03 in                                                  | 149           | °F                    |             |
| 0.06 in                                                  | 149           | °F                    |             |
| 0.12 in                                                  | 149           | °F                    |             |
| Electrical                                               | Nominal Value | Unit                  | Test Method |
| Volume Resistivity                                       | 1.0E+14       | ohms·cm               | ASTM D257   |
| Dielectric Strength (0.118 in)                           | 430           | V/mil                 | ASTM D149   |
| Comparative Tracking Index (CTI)                         | 600           | V                     | UL 746A     |
| Flammability                                             | Nominal Value | Unit                  | Test Method |
| Flame Rating (0.03 in)                                   | HB            |                       | UL 94       |
| Oxygen Index                                             | 22            | %                     | ASTM D2863  |

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### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 175           | °F   |
| Suggested Max Moisture | 0.20          | %    |
| Suggested Max Regrind  | 25            | %    |
| Rear Temperature       | 465 to 490    | °F   |
| Middle Temperature     | 495 to 525    | °F   |
| Front Temperature      | 505 to 540    | °F   |
| Nozzle Temperature     | 505 to 535    | °F   |
| Processing (Melt) Temp | 505 to 535    | °F   |

### Notes

<sup>1</sup> Automotive site approvals apply for US manufactured compound only

<sup>2</sup> Typical properties: these are not to be construed as specifications.