



# Chemlon® 140 BH

Teknor Apex Company (Chem Polymer) - Polyamide 66

## General Information

### General

|                        |                      |          |                 |
|------------------------|----------------------|----------|-----------------|
| Material Status        | • Commercial: Active |          |                 |
| Availability           | • Asia Pacific       | • Europe | • North America |
| Filler / Reinforcement | • Glass Bead         |          |                 |
| Forms                  | • Pellets            |          |                 |
| Processing Method      | • Injection Molding  |          |                 |

## ASTM & ISO Properties <sup>1</sup>

| Physical                                                 | Nominal Value  | Unit     | Test Method |
|----------------------------------------------------------|----------------|----------|-------------|
| Specific Gravity                                         | 1.44           |          | ASTM D792   |
| Molding Shrinkage - Flow <sup>2</sup>                    | 0.010 to 0.015 | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                 | 0.90           | %        | ASTM D570   |
| Mechanical                                               | Nominal Value  | Unit     | Test Method |
| Tensile Strength                                         | 12500          | psi      | ASTM D638   |
| Tensile Elongation (Yield)                               | 3.0            | %        | ASTM D638   |
| Tensile Elongation (Break)                               | 4.0            | %        | ASTM D638   |
| Flexural Modulus                                         | 685000         | psi      | ASTM D790   |
| Flexural Strength                                        | 19500          | psi      | ASTM D790   |
| Impact                                                   | Nominal Value  | Unit     | Test Method |
| Notched Izod Impact (73°F)                               | 0.80           | ft-lb/in | ASTM D256   |
| Thermal                                                  | Nominal Value  | Unit     | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed)   | 468            | °F       | ASTM D648   |
| Deflection Temperature Under Load<br>264 psi, Unannealed | 419            | °F       | ASTM D648   |
| Melting Temperature                                      | 495            | °F       | ASTM D789   |
| Electrical                                               | Nominal Value  | Unit     | Test Method |
| Volume Resistivity                                       | 1.0E+14        | ohms·cm  | ASTM D257   |
| Dielectric Strength (0.118 in)                           | 380            | V/mil    | ASTM D149   |
| Flammability                                             | Nominal Value  | Unit     | Test Method |
| Flame Rating <sup>3</sup> (0.03 in)                      | HB             |          | UL 94       |
| Oxygen Index                                             | 27             | %        | ASTM D2863  |

## Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 175           | °F   |
| Suggested Max Moisture | 0.20          | %    |
| Suggested Max Re grind | 25            | %    |
| Rear Temperature       | 465 to 495    | °F   |
| Middle Temperature     | 495 to 520    | °F   |
| Front Temperature      | 505 to 535    | °F   |
| Nozzle Temperature     | 505 to 540    | °F   |
| Processing (Melt) Temp | 505 to 540    | °F   |