

# DYNAMID DYN-N66MIL NC

Polyamide 66  
Dynamic Polymer Solutions

| Technical Data                                            |                                                                       |                                                                                      |              |
|-----------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------|
| Product Description                                       |                                                                       |                                                                                      |              |
| Polyamide 66, medium impact modified & lubricated natural |                                                                       |                                                                                      |              |
| General                                                   |                                                                       |                                                                                      |              |
| Material Status                                           | • Commercial: Active                                                  |                                                                                      |              |
| Literature <sup>1</sup>                                   | • <a href="#">Technical Datasheet (English)</a>                       |                                                                                      |              |
| Availability                                              | • North America                                                       |                                                                                      |              |
| Additive                                                  | • Impact Modifier                                                     | • Lubricant                                                                          |              |
| Features                                                  | • Abrasion Resistant<br>• Chemical Resistant<br>• Good Processability | • High Impact Resistance<br>• Impact Modified<br>• Low Temperature Impact Resistance | • Lubricated |
| Appearance                                                | • Natural Color                                                       |                                                                                      |              |
| Processing Method                                         | • Injection Molding                                                   |                                                                                      |              |
| Physical                                                  | Nominal Value (English)                                               | Nominal Value (SI)                                                                   | Test Method  |
| Density / Specific Gravity                                |                                                                       |                                                                                      |              |
| --                                                        | 1.10                                                                  | 1.10 g/cm³                                                                           | ASTM D792    |
| 73°F (23°C)                                               | 1.10 g/cm³                                                            | 1.10 g/cm³                                                                           | ISO 1183     |
| Mechanical                                                | Nominal Value (English)                                               | Nominal Value (SI)                                                                   | Test Method  |
| Tensile Modulus                                           |                                                                       |                                                                                      |              |
| -- <sup>3</sup>                                           | 336000 psi                                                            | 2320 MPa                                                                             | ASTM D638    |
| --                                                        | 336000 psi                                                            | 2310 MPa                                                                             | ISO 527-1/10 |
| Tensile Strength                                          |                                                                       |                                                                                      |              |
| Yield <sup>4</sup>                                        | 10200 psi                                                             | 70.3 MPa                                                                             | ASTM D638    |
| Yield                                                     | 10000 psi                                                             | 69.0 MPa                                                                             | ISO 527-2/50 |
| Tensile Elongation                                        |                                                                       |                                                                                      |              |
| Break <sup>4</sup>                                        | 35 %                                                                  | 35 %                                                                                 | ASTM D638    |
| Break                                                     | 30 %                                                                  | 30 %                                                                                 | ISO 527-2/50 |
| Flexural Modulus <sup>5</sup>                             |                                                                       |                                                                                      |              |
| --                                                        | 285000 psi                                                            | 1970 MPa                                                                             | ASTM D790    |
| --                                                        | 334000 psi                                                            | 2300 MPa                                                                             | ISO 178      |
| Flexural Strength <sup>5</sup>                            |                                                                       |                                                                                      |              |
| --                                                        | 13000 psi                                                             | 89.6 MPa                                                                             | ASTM D790    |
| --                                                        | 10200 psi                                                             | 70.0 MPa                                                                             | ISO 178      |
| Impact                                                    | Nominal Value (English)                                               | Nominal Value (SI)                                                                   | Test Method  |
| Charpy Notched Impact Strength (73°F (23°C))              | 4.3 ft·lb/in²                                                         | 9.0 kJ/m²                                                                            | ISO 179      |
| Notched Izod Impact                                       |                                                                       |                                                                                      |              |
| 73°F (23°C)                                               | 4.2 ft·lb/in                                                          | 220 J/m                                                                              | ASTM D256    |
| 73°F (23°C)                                               | 12 ft·lb/in²                                                          | 25 kJ/m²                                                                             | ISO 180      |



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# PROSPECTOR®

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| Thermal                           | Nominal Value (English) | Nominal Value (SI) | Test Method            |
|-----------------------------------|-------------------------|--------------------|------------------------|
| Deflection Temperature Under Load |                         |                    |                        |
| 66 psi (0.45 MPa), Unannealed     | 441 °F                  | 227 °C             | ASTM D648              |
| 66 psi (0.45 MPa), Unannealed     | 149 °F                  | 65.0 °C            | ISO 75-2/B             |
| 264 psi (1.8 MPa), Unannealed     | 165 °F                  | 74.0 °C            | ASTM D648              |
| 264 psi (1.8 MPa), Unannealed     | 144 °F                  | 62.0 °C            | ISO 75-2/A             |
| Peak Melting Temperature          | 500 °F                  | 260 °C             | ASTM D3418<br>ISO 3146 |

| Injection              | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 176 to 212 °F           | 80 to 100 °C       |
| Drying Time            | 2.0 to 4.0 hr           | 2.0 to 4.0 hr      |
| Suggested Max Moisture | < 0.15 %                | < 0.15 %           |
| Processing (Melt) Temp | 527 to 572 °F           | 275 to 300 °C      |
| Mold Temperature       | 122 to 167 °F           | 50 to 75 °C        |
| Injection Rate         | Moderate                | Moderate           |
| Back Pressure          | 90.0 to 140 psi         | 0.621 to 0.965 MPa |

### Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

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

<sup>3</sup> 0.39 in/min (10 mm/min)

<sup>4</sup> 2.0 in/min (50 mm/min)

<sup>5</sup> 0.20 in/min (5.0 mm/min)

