

# TECAST™ 6PALM

Polyamide 6  
Ensinger Inc.

## Message:

TECAST™ 6PALM is a premium grade of cast nylon containing both solid and liquid lubricants. These lubricants are dispersed throughout the nylon material to provide consistent wear rates and coefficients of friction. TECAST™ 6PALM contains MOS2 and oil to "bridge the gap" between oil-filled and MOS2 cast nylons. It offers the better wear properties of oil-filled nylons while maintaining more of the mechanical characteristics of MOS2-filled cast nylons.

TECAST™ 6PALM has a unique combination of strength, wear and corrosion resistance, machinability and lubricity that make it ideal for bearings, thrust washers, bushings, wear pads, sheaves and other parts where lubrication and light weight wear resistance is required. It is commonly used in heavy construction equipment, material handling systems, steel and paper mill equipment and other industrial machinery.

| General Information                             |                                |               |             |
|---|--------------------------------|---------------|-------------|
| Additive  | Lubricant 2                    |               |             |
|   | Molybdenum Disulfide Lubricant |               |             |
| Features  | Fatigue Resistant              |               |             |
|   | Good Corrosion Resistance      |               |             |
|   | Good Wear Resistance           |               |             |
|   | Lubricated                     |               |             |
|   | Machinable                     |               |             |
| Uses  | Bearings                       |               |             |
|   | Bushings                       |               |             |
|   | Construction Applications      |               |             |
|   | Industrial Applications        |               |             |
|   | Metal Replacement              |               |             |
|   | Thrust Washer                  |               |             |
| Forms   | Shapes                         |               |             |
| Hardness  | Nominal Value                  |               | Test Method |
| Rockwell Hardness (R-Scale)                     | 110                            |               | ASTM D785   |
| Mechanical                                      | Nominal Value                  | Unit          | Test Method |
| Tensile Strength (Break, 23°C)                  | 58.6                           | MPa           | ASTM D638   |
| Tensile Elongation (Break, 23°C)                | 40                             | %             | ASTM D638   |
| Flexural Modulus (23°C)                         | 2760                           | MPa           | ASTM D790   |
| Flexural Strength (23°C)                        | 88.3                           | MPa           | ASTM D790   |
| Coefficient of Friction                         |                                |               |             |
| vs. Itself - Dynamic                            | 0.14                           |               |             |
| vs. Itself - Static                             | 0.16                           |               |             |
| Wear Factor <sup>1</sup> (0.28 MPa, 0.25 m/sec) | 99                             | 10^-8 mm³/N·m | ASTM D3702  |
| Impact  | Nominal Value                  | Unit          | Test Method |

| Notched Izod Impact (23°C)  | 93               | J/m       | ASTM D256   |
|-----------------------------|------------------|-----------|-------------|
| Thermal                     | Nominal Value    | Unit      | Test Method |
| CLTE - Flow                 | 7.2E-4 to 9.0E-4 | cm/cm/°C  | ASTM D696   |
| Maximum Service Temperature |                  |           |             |
| Intermittent                | 166              | °C        |             |
| Long Term                   | 93               | °C        |             |
| Limiting Pressure Velocity  | 16000 to 17000   | psi · fpm |             |
| NOTE                        |                  |           |             |
| 1.                          | Against Steel    |           |             |

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