# Plaslube® POM CO TS20

## Acetal (POM) Copolymer

## **Techmer Engineered Solutions**

### Message:

Plaslube® POM CO TS20 is a polyoxymethylene (POM) copolymer product. It can be processed by injection molding and is available in North America. Features include:

Copolymer

Wear-resistant

Lubrication

| General Information                 |                                 |               |             |  |  |
|-------------------------------------|---------------------------------|---------------|-------------|--|--|
| Additive                            | PTFE + Silicone Lubricant (20%) |               |             |  |  |
| Features                            | Copolymer                       |               |             |  |  |
|                                     | Good wear resistance            |               |             |  |  |
|                                     | Lubrication                     |               |             |  |  |
| Appearance                          | Available colors                |               |             |  |  |
| Forms                               | Particle                        |               |             |  |  |
| Processing Method                   | Injection molding               |               |             |  |  |
| Physical                            | Nominal Value                   | Unit          | Test Method |  |  |
| Specific Gravity                    | 1.50                            | g/cm³         | ASTM D792   |  |  |
| Molding Shrinkage - Flow (3.18 mm)  | 2.0                             | %             | ASTM D955   |  |  |
| Water Absorption (24 hr)            | 0.20                            | %             | ASTM D570   |  |  |
| Hardness                            | Nominal Value                   | Unit          | Test Method |  |  |
| Rockwell Hardness (R-Scale)         | 79                              |               | ASTM D785   |  |  |
| Mechanical                          | Nominal Value                   | Unit          | Test Method |  |  |
| Tensile Strength (Break)            | 41.4                            | MPa           | ASTM D638   |  |  |
| Tensile Elongation (Yield)          | 12                              | %             | ASTM D638   |  |  |
| Flexural Modulus                    | 2070                            | MPa           | ASTM D790   |  |  |
| Flexural Strength                   | 67.6                            | MPa           | ASTM D790   |  |  |
| Coefficient of Friction             |                                 |               | ASTM D1894  |  |  |
| With steel-dynamic                  | 0.11                            |               | ASTM D1894  |  |  |
| With steel-static                   | 0.060                           |               | ASTM D1894  |  |  |
| Wear Factor                         | 18                              | 10^-8 mm³/N·m | ASTM D3702  |  |  |
| Impact                              | Nominal Value                   | Unit          | Test Method |  |  |
| Notched Izod Impact (23°C, 3.18 mm) | 53                              | J/m           | ASTM D256   |  |  |
| Thermal                             | Nominal Value                   | Unit          | Test Method |  |  |
| Deflection Temperature Under Load   |                                 |               | ASTM D648   |  |  |
| 0.45 MPa, not annealed              | 166                             | °C            | ASTM D648   |  |  |
| 1.8 MPa, not annealed               | 98.9                            | °C            | ASTM D648   |  |  |
| CLTE - Flow                         | 9.0E-5                          | cm/cm/°C      | ASTM D696   |  |  |

| Electrical                       | Nominal Value | Unit    | Test Method |
|----------------------------------|---------------|---------|-------------|
| Volume Resistivity               | 1.0E+15       | ohms·cm | ASTM D257   |
| Dielectric Strength <sup>1</sup> | 18            | kV/mm   | ASTM D149   |
| Injection                        | Nominal Value | Unit    |             |
| Drying Temperature               | 82.2          | °C      |             |
| Drying Time                      | 1.0 - 2.0     | hr      |             |
| Suggested Max Moisture           | 0.20          | %       |             |
| Rear Temperature                 | 177 - 188     | °C      |             |
| Middle Temperature               | 188 - 199     | °C      |             |
| Front Temperature                | 182 - 193     | °C      |             |
| Nozzle Temperature               | 177 - 188     | °C      |             |
| Processing (Melt) Temp           | 188 - 204     | °C      |             |
| Mold Temperature                 | 76.7 - 93.3   | °C      |             |
| Injection Rate                   | Moderate-Fast |         |             |
| Back Pressure                    | 0.345 - 0.689 | MPa     |             |
| Injection instructions           |               |         |             |

Screw Speed: MediumRecommendations for Molding and Tool Conditions: Well ventedMoisture Content, as received: Product is packaged at 0.2% or less.Drying not normally required. Dry at 180°F for 1 to 2 hours if necessary.

#### NOTE

1.

Method A (short time)

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