

# LNP™ LUBRICOMP™ YL003C compound

Thermoplastic Polyester Elastomer

SABIC Innovative Plastics

## Message:

LUBRICOMP\* YL003C is a compound based on Polyester Elastomer resin containing 15% PTFE. Added features of this grade include: Clean Compound System, Wear Resistant.

Also known as: LNP\* LUBRICOMP\* Compound YL-4030 CCS

Product Reorder name: YL003C

| General Information          |                           |                   |                     |
|------------------------------|---------------------------|-------------------|---------------------|
| UL YellowCard                | E121562-101343461         |                   |                     |
| Additive                     | PTFE Lubricant (15%)      |                   |                     |
| Features                     | Good Wear Resistance      |                   |                     |
|                              | Low (to None) Ion Content |                   |                     |
|                              | Lubricated                |                   |                     |
|                              |                           |                   |                     |
| Processing Method            | Injection Molding         |                   |                     |
| Physical                     | Nominal Value             | Unit              | Test Method         |
| Specific Gravity             | 1.27                      | g/cm <sup>3</sup> | ASTM D792, ISO 1183 |
| Molding Shrinkage            |                           |                   |                     |
| Flow : 24 hr                 | 1.5 to 1.7                | %                 | ASTM D955           |
| Across Flow : 24 hr          | 1.7 to 1.9                | %                 | ASTM D955           |
| Across Flow : 24 hr          | 1.8                       | %                 | ISO 294-4           |
| Flow : 24 hr                 | 1.6                       | %                 | ISO 294-4           |
| Water Absorption             |                           |                   |                     |
| 23°C, 24 hr <sup>1</sup>     | 0.20                      | %                 | ASTM D570           |
| Saturation, 23°C             | 0.50                      | %                 | ISO 62              |
| Hardness                     | Nominal Value             | Unit              | Test Method         |
| Durometer Hardness (Shore D) | 56                        |                   | ASTM D2240          |
| Mechanical                   | Nominal Value             | Unit              | Test Method         |
| Tensile Modulus              |                           |                   |                     |
| -- <sup>2</sup>              | 280                       | MPa               | ASTM D638           |
| --                           | 260                       | MPa               | ISO 527-2/1         |
| Tensile Strength (Break)     | 22.0                      | MPa               | ASTM D638           |
| Tensile Elongation           |                           |                   |                     |
| Break                        | 90                        | %                 | ASTM D638           |
| Break                        | > 450                     | %                 | ISO 527-2/50        |
| Flexural Modulus             |                           |                   |                     |
| --                           | 290                       | MPa               | ASTM D790           |
| --                           | 280                       | MPa               | ISO 178             |
| Flexural Strength            |                           |                   |                     |

|                                                 |                            |                   |                        |
|-------------------------------------------------|----------------------------|-------------------|------------------------|
| --                                              | 19.0                       | MPa               | ASTM D790              |
| --                                              | 12.0                       | MPa               | ISO 178                |
| <b>Impact</b>                                   | <b>Nominal Value</b>       | <b>Unit</b>       | <b>Test Method</b>     |
| Notched Izod Impact (23°C)                      | 150                        | J/m               | ASTM D256              |
| Unnotched Izod Impact                           |                            |                   |                        |
| 23°C                                            | 580                        | J/m               | ASTM D4812             |
| 23°C <sup>3</sup>                               | 23                         | kJ/m <sup>2</sup> | ISO 180/1U             |
| 23°C <sup>4</sup>                               | 48                         | kJ/m <sup>2</sup> | ISO 180/1U             |
| <b>Thermal</b>                                  | <b>Nominal Value</b>       | <b>Unit</b>       | <b>Test Method</b>     |
| Deflection Temperature Under Load               |                            |                   |                        |
| 0.45 MPa, Unannealed, 6.40 mm                   | 85.0                       | °C                | ASTM D648              |
| 0.45 MPa, Unannealed, 64.0 mm Span <sup>5</sup> | 88.0                       | °C                | ISO 75-2/Bf            |
| 1.8 MPa, Unannealed, 6.40 mm                    | 54.0                       | °C                | ASTM D648              |
| 1.8 MPa, Unannealed, 64.0 mm Span <sup>6</sup>  | 57.0                       | °C                | ISO 75-2/Af            |
| CLTE                                            |                            |                   | ASTM E831, ISO 11359-2 |
| Flow : -40 to 40°C                              | 1.1E-4                     | cm/cm/°C          |                        |
| Transverse : -40 to 40°C                        | 1.8E-4                     | cm/cm/°C          |                        |
| <b>Flammability</b>                             | <b>Nominal Value</b>       |                   | <b>Test Method</b>     |
| Flame Rating (1.00 mm)                          | HB                         |                   | UL 94                  |
| <b>Injection</b>                                | <b>Nominal Value</b>       | <b>Unit</b>       |                        |
| Drying Temperature                              | 82.2                       | °C                |                        |
| Drying Time                                     | 4.0                        | hr                |                        |
| Suggested Max Moisture                          | 0.10                       | %                 |                        |
| Rear Temperature                                | 182 to 193                 | °C                |                        |
| Middle Temperature                              | 204 to 216                 | °C                |                        |
| Front Temperature                               | 227 to 238                 | °C                |                        |
| Processing (Melt) Temp                          | 216 to 238                 | °C                |                        |
| Mold Temperature                                | 26.7 to 54.4               | °C                |                        |
| Back Pressure                                   | 0.172 to 0.344             | MPa               |                        |
| Screw Speed                                     | 30 to 60                   | rpm               |                        |
| <b>NOTE</b>                                     |                            |                   |                        |
| 1.                                              | Results measured at 48 hrs |                   |                        |
| 2.                                              | 50 mm/min                  |                   |                        |
| 3.                                              | 80*10*4                    |                   |                        |
| 4.                                              | 80*10*3                    |                   |                        |
| 5.                                              | 80*10*4 mm                 |                   |                        |
| 6.                                              | 80*10*4 mm                 |                   |                        |

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