

# LNP™ THERMOCOMP™ EC004APQ

## compound

Polyether Imide

SABIC Innovative Plastics

### Message:

LNP\* THERMOCOMP\* EC004APQ is a compound based on Polyetherimide containing 20% Carbon Fiber. Added feature of this grade includes: Electrically Conductive.

Also known as: LNP\* THERMOCOMP\* Compound EC004APQ

Product reorder name: EC004APQ

| General Information                                              |                                                        |                   |             |
|------------------------------------------------------------------|--------------------------------------------------------|-------------------|-------------|
| Filler / Reinforcement                                           | Carbon fiber reinforced material, 20% filler by weight |                   |             |
| Features                                                         | Conductivity                                           |                   |             |
| Processing Method                                                | Injection molding                                      |                   |             |
| Physical                                                         | Nominal Value                                          | Unit              | Test Method |
| Specific Gravity                                                 | 1.33                                                   | g/cm <sup>3</sup> | ASTM D792   |
| Water Absorption (24 hr, 50% RH)                                 | 0.15                                                   | %                 | ASTM D570   |
| Mechanical                                                       | Nominal Value                                          | Unit              | Test Method |
| Tensile Modulus <sup>1</sup>                                     | 19100                                                  | MPa               | ASTM D638   |
| Tensile Strength <sup>2</sup> (Break)                            | 245                                                    | MPa               | ASTM D638   |
| Tensile Elongation <sup>3</sup> (Break)                          | 2.3                                                    | %                 | ASTM D638   |
| Flexural Modulus <sup>4</sup> (50.0 mm Span)                     | 15800                                                  | MPa               | ASTM D790   |
| Flexural Strength <sup>5</sup> (Break, 50.0 mm Span)             | 344                                                    | MPa               | ASTM D790   |
| Poisson's Ratio                                                  | 0.44                                                   |                   | ASTM D638   |
| Impact                                                           | Nominal Value                                          | Unit              | Test Method |
| Notched Izod Impact (23°C)                                       | 110                                                    | J/m               | ASTM D256   |
| Unnotched Izod Impact (23°C)                                     | 710                                                    | J/m               | ASTM D4812  |
| Thermal                                                          | Nominal Value                                          | Unit              | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm) | 170                                                    | °C                | ASTM D648   |
| Electrical                                                       | Nominal Value                                          | Unit              | Test Method |
| Surface Resistivity                                              | 1.0E+5 - 1.0E+6                                        | ohms              | ASTM D257   |
| Injection                                                        | Nominal Value                                          | Unit              |             |
| Drying Temperature                                               | 120 - 150                                              | °C                |             |
| Drying Time                                                      | 4.0                                                    | hr                |             |
| Suggested Max Moisture                                           | 0.020                                                  | %                 |             |
| Rear Temperature                                                 | 380 - 400                                              | °C                |             |
| Middle Temperature                                               | 380 - 400                                              | °C                |             |
| Front Temperature                                                | 380 - 400                                              | °C                |             |
| Processing (Melt) Temp                                           | 380 - 400                                              | °C                |             |

|                  |               |     |
|------------------|---------------|-----|
| Mold Temperature | 165 - 180     | °C  |
| Back Pressure    | 0.300 - 0.700 | MPa |
| Screw Speed      | 50 - 100      | rpm |

#### Injection instructions

Injection Speed: 40 - 70 mm/s

#### NOTE

- |    |                    |
|----|--------------------|
| 1. | 5.0 mm/min         |
| 2. | Type 1, 5.0 mm/min |
| 3. | Type 1, 5.0 mm/min |
| 4. | 1.3 mm/min         |
| 5. | 1.3 mm/min         |

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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