

# DIC.PPS FZ-2140-D7

Polyphenylene Sulfide

DIC Corporation

## Message:

DIC.PPS FZ-2140-D7 is a polyphenylene sulfide (PPS) product, which contains a 40% glass fiber reinforced material. It can be processed by injection molding and is available in North America or Asia Pacific. The main characteristics are: flame retardant/rated flame.

| General Information                                     |                                                       |                   |             |
|---------------------------------------------------------|-------------------------------------------------------|-------------------|-------------|
| UL YellowCard                                           | E53829-243759                                         | E53829-243760     |             |
| Filler / Reinforcement                                  | Glass fiber reinforced material, 40% filler by weight |                   |             |
| Forms                                                   | Particle                                              |                   |             |
| Processing Method                                       | Injection molding                                     |                   |             |
| Physical                                                | Nominal Value                                         | Unit              | Test Method |
| Specific Gravity                                        | 1.66                                                  | g/cm <sup>3</sup> | ASTM D792   |
| Molding Shrinkage                                       |                                                       |                   | ASTM D955   |
| Flow                                                    | 0.25                                                  | %                 | ASTM D955   |
| Transverse flow                                         | 1.1                                                   | %                 | ASTM D955   |
| Water Absorption (23°C, 24 hr)                          | 0.020                                                 | %                 | ASTM D570   |
| Hardness                                                | Nominal Value                                         | Unit              | Test Method |
| Rockwell Hardness                                       |                                                       |                   | ASTM D785   |
| Class m                                                 | 100                                                   |                   | ASTM D785   |
| Class r                                                 | 121                                                   |                   | ASTM D785   |
| Mechanical                                              | Nominal Value                                         | Unit              | Test Method |
| Tensile Modulus                                         | 14000                                                 | MPa               | ASTM D638   |
| Tensile Strength                                        | 180                                                   | MPa               | ASTM D638   |
| Tensile Elongation (Break)                              | 1.8                                                   | %                 | ASTM D638   |
| Flexural Modulus                                        | 13000                                                 | MPa               | ASTM D790   |
| Flexural Strength                                       | 270                                                   | MPa               | ASTM D790   |
| Compressive Strength                                    | 200                                                   | MPa               | ASTM D695   |
| Coefficient of Friction                                 |                                                       |                   | ASTM D1894  |
| With Metal-Dynamic                                      | 0.35                                                  |                   | ASTM D1894  |
| With metal-static                                       | 0.35                                                  |                   | ASTM D1894  |
| Impact                                                  | Nominal Value                                         | Unit              | Test Method |
| Notched Izod Impact                                     | 100                                                   | J/m               | ASTM D256   |
| Unnotched Izod Impact                                   | 550                                                   | J/m               | ASTM D256   |
| Thermal                                                 | Nominal Value                                         | Unit              | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 265                                                   | °C                | ASTM D648   |
| CLTE - Flow (-30 to 100°C)                              | 2.0E-5                                                | cm/cm/°C          | ASTM D696   |
| Electrical                                              | Nominal Value                                         | Unit              | Test Method |
| Volume Resistivity                                      | 1.0E+16                                               | ohms · cm         | ASTM D257   |

|                                  |               |       |             |
|----------------------------------|---------------|-------|-------------|
| Dielectric Strength (1.60 mm)    | 16            | kV/mm | ASTM D149   |
| Dielectric Constant (1 MHz)      | 4.00          |       | ASTM D150   |
| Dissipation Factor (1 MHz)       | 2.0E-3        |       | ASTM D150   |
| Arc Resistance                   | 125           | sec   | ASTM D495   |
| Comparative Tracking Index (CTI) | 145           | V     | UL 746      |
| Flammability                     | Nominal Value | Unit  | Test Method |
| Flame Rating (0.800 mm)          | V-0           |       | UL 94       |

#### Additional Information

The value shown for Comparative Track Index, UL 746, was tested in accordance with ASTM D3638. Flexural Elongation @ Break, ASTM D790: 2.5%

| Injection          | Nominal Value | Unit |
|--------------------|---------------|------|
| Rear Temperature   | 300 - 340     | °C   |
| Middle Temperature | 300 - 340     | °C   |
| Front Temperature  | 300 - 340     | °C   |
| Mold Temperature   | 120 - 150     | °C   |

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#### Recommended distributors for this material

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