# **MAJORIS FD905U**

### Polypropylene

#### AD majoris

#### Message:

FD905U is a halogen free flame retardant compound with UL 94 VO classification, intended for injection moulding. The product is available in natural (FD905U) but other colours can be provided on request.

In addition to having an extremely low level of toxicity and low smoke in the case of a fire FD905U provides an excellent balance of high impact strength and rigidity.

**APPLICATIONS** 

FD905U is intended for the injection moulding of electrical component such as:

Electrical appliance components

Sockets

Junction boxes

Switches and connector housings

| General Information                       |                           |          |              |  |  |
|---|---------------------------|----------|--------------|--|--|
| Additive                                  | Flame retardancy          |          |              |  |  |
| Features                                  | Low smoke                 |          |              |  |  |
|   | Low toxicity              |          |              |  |  |
|   | Rigidity, high            |          |              |  |  |
|   | Impact resistance, high   |          |              |  |  |
|   | Recyclable materials      |          |              |  |  |
|   | Halogen-free              |          |              |  |  |
|   | Flame retardancy          |          |              |  |  |
|   |                           |          |              |  |  |
| Uses                                      | Electrical components     |          |              |  |  |
|   | Electrical housing        |          |              |  |  |
|   | Home appliance components |          |              |  |  |
| Appearance                                | Available colors          |          |              |  |  |
|   | Natural color             |          |              |  |  |
| Forms                                     | Particle                  |          |              |  |  |
| Processing Method                         | Injection molding         |          |              |  |  |
| Physical                                  | Nominal Value             | Unit     | Test Method  |  |  |
| Density                                   | 1.32                      | g/cm³    | ISO 1183     |  |  |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 8.0                       | g/10 min | ISO 1133     |  |  |
| Mechanical                                | Nominal Value             | Unit     | Test Method  |  |  |
| Tensile Stress (Yield)                    | 16.0                      | MPa      | ISO 527-2/50 |  |  |
| Tensile Strain (Break)                    | 1.0                       | %        | ISO 527-2/50 |  |  |
| Flexural Modulus <sup>1</sup>             | 3920                      | MPa      | ISO 178      |  |  |
| Impact                                    | Nominal Value             | Unit     | Test Method  |  |  |

| Charpy Notched Impact Strength (23°C)                 | 6.0           | kJ/m²   | ISO 179        |  |
|---|---------------|---------|----------------|--|
| Thermal   | Nominal Value | Unit    | Test Method    |  |
| Heat Deflection Temperature (0.45 MPa,<br>Unannealed) | 112           | °C      | ISO 75-2/B     |  |
| Ball Pressure Test (125°C)                            | Pass          |         | UL 746         |  |
| Thermal Conductivity (35°C)                           | 0.62          | W/m/K   |                |  |
| Electrical  | Nominal Value | Unit    | Test Method    |  |
| Volume Resistivity                                    | 2.3E+18       | ohms·cm | JIS K6911      |  |
| Dielectric Constant                                   | 2.65          |         | JIS K6911      |  |
| Arc Resistance  | 192           | sec     | ASTM D495      |  |
| Comparative Tracking Index                            | > 600         | V       | IEC 60112      |  |
| Flammability  | Nominal Value | Unit    | Test Method    |  |
| Flame Rating (3.20 mm)                                | V-0           |         | UL 94          |  |
| Glow Wire Ignition Temperature (2.00 mm, 30 sec)      | 850           | °C      | IEC 60695-2-13 |  |
| Oxygen Index  | 29            | %       | ISO 4589-2     |  |
| Injection   | Nominal Value | Unit    |                |  |
| Processing (Melt) Temp                                | 210 - 240     | °C      |                |  |
| Mold Temperature                                      | 50.0 - 60.0   | °C      |                |  |
| Injection Rate  | Moderate      |         |                |  |
| Injection instructions                                |               |         |                |  |
| Holding pressure: 50 to 70% of the injection pressure |               |         |                |  |
| NOTE  |               |         |                |  |
| 1.  | 2.0 mm/min    |         |                |  |

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