

TECHNICAL DATA SHEET

VOLTALEF® 402 POWDER

FLUORINATED HOMOPOLYMER POWDER

VOLTALEF® 402 resin is a fluorinated polymer which presents an exceptional behavior at very low temperatures. It is usable in continuation from -200°C to +150°C with allowable peaks at 200°C. It is non-inflammability, has excellent chemical and radiation resistance, good barrier properties, is insensitivity to oxygen and water with good electrical properties. The processing is critical but can be done by extrusion, injection and compression molding.

DESIGNATION

PCTFE

TRANSFORMATION PROCESSES

- Film Extrusion
- Injection Molding
- Other Extrusion
- Transfer Molding

MECHANICAL PROPERTIES

| 속성 | 값 | 테스트 표준 |
|---|----------------------|----------------|
| Nominal strain at break, 23°C (73°F), 50 mm/min | 50 % | ISO 527-1/-2 |
| Charpy notched impact strength, 23°C (73°F) | 80 kJ/m ² | ISO 179 1eA |
| Yield stress, 23°C (73°F), 50 mm/min | 43 MPa | ISO 527-1/-2 |
| Yield strain, 23°C (73°F), 50 mm/min | 7 % | ISO 527-1/-2 |
| Nominal strain at break, 23°C (73°F), 50 mm/min | 23 % | ISO 527-1/-2 |
| Yield strain, 23°C (73°F), 50 mm/min | 7 % | ISO 527-1/-2 |
| Tensile modulus, 23°C (73°F), 1 mm/min | 1400 MPa | ISO 527-1/-2 |
| 속성 | 값 | 테스트 표준 |
| Glass transition temperature, 10°C/min | 55 °C | ISO 11357-1/-2 |
| Heat deflection temperature, 1.8 MPa | 70 °C | ISO 75-1/-2 |
| Heat deflection temperature, 0.45 MPa | 126 °C | ISO 75-1/-2 |
| Oxygen index | 100 % | ISO 4589-1/-2 |
| Melting temperature, 10°C/min | 214 °C | ISO 11357-1/-3 |

THERMAL PROPERTIES/ELECTRICAL PROPERTIES

| 속성 | 값 | 테스트 표준 |
|------------------------------------|----------------|-------------|
| Surface resistivity | 1*10E15 ohm/sq | |
| Volumic (transversal) resistivity | 2*10E12 ohm*m | |
| Dielectric strength, 23°C (73,4°F) | 21 kV/mm | IEC 60243-1 |

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OTHER PROPERTIES

| 속성 | 값 | 테스트 표준 |
|--|------------------------|--------|
| Water absorption, Saturated in water at 23°C (73°F) | 0.01 % | ISO 62 |
| Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR | 0.01 % | ISO 62 |
| Apparent density, Non compacted | 2130 kg/m ³ | |

SPECIAL CHARACTERISTICS

- Flame & smoke

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