

TECHNICAL DATA SHEET

VOLTALEF® 302

FLUORINATED HOMOPOLYMER POWDER

VOLTALEF® 302 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 |
| 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 |

THERMAL PROPERTIES ELECTRICAL PROPERTIES

| 속성 | 값 | 테스트 표준 |
|------------------------------------|---------------------------|-------------|
| Surface resistivity | 1*10 ¹⁵ ohm/sq | |
| Volumic (transversal) resistivity | 2*10 ¹² 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 | |

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