

Veradel® 3000P

polyethersulfone

Veradel® 3000P, 3100P, 3200P, 3400P and 3600P are polyethersulfone (PESU) powders for dissolving or dispersing into solutions. They can also be ground to smaller particle size or blended with other solid particles. The grades differ by their molecular weights, with 3000P the highest and 3600P the lowest. There is a direct correlation between molecular weight and solution viscosity.

PESU offers excellent toughness and outstanding hydrolytic resistance. It resists attack from steam, boiling water, and

mineral acids. Cast films or coatings of PESU are transparent and have additional desirable properties including long term thermal stability, excellent metal adhesion and formability and inherent flame resistance.

Typical applications include high-temperature coating formulations, membranes, advanced high-temperature composites, and specialty adhesives.

This grade was formerly marketed as Gafone™ PESU

General

| | | |
|-------------------|--|---|
| Material Status | • Commercial: Active | |
| Availability | • Africa & Middle East • Asia Pacific • Europe | • Latin America • North America |
| Features | • Acid Resistant • Chemical Resistant • Creep Resistant • Flame Retardant • Food Contact Acceptable • Good Adhesion • Good Dimensional Stability • Good Thermal Stability | • Good Toughness • High Heat Resistance • High Molecular Weight • High Tensile Strength • Hydrolysis Resistant • Low Flow • Medium Rigidity |
| Uses | • Membranes | |
| Agency Ratings | • NSF STD-61 ¹ | |
| RoHS Compliance | • Contact Manufacturer | |
| Appearance | • Transparent - Slight Yellow | |
| Forms | • Granules | • Powder |
| Processing Method | • Cast Film • Coating | • Solution Processing • Spraying |

Physical

| | Typical Value | Unit | Test method |
|---------------------------------|---------------|-------|-----------------|
| Density / Specific Gravity | 1.37 | | ASTM D792 |
| Water Absorption (24 hr) | 0.60 | % | ASTM D570 |
| Solution Viscosity ² | 1450 | mPa·s | Internal Method |
| Residual Solvent | 0.50 | % | Internal Method |

Thermal

| | Typical Value | Unit | Test method |
|------------------------------|---------------|----------|-------------|
| Glass Transition Temperature | 220 | °C | ASTM E1356 |
| CLTE - Flow | 4.9E-5 | cm/cm/°C | ASTM D696 |

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Notes

Typical properties: these are not to be construed as specifications.

¹ Tested at 82 °C (180 °F) (Commercial Hot). Only products bearing the NSF Mark are Certified.

² 25% in dimethylacetamide at 40°C

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