

# Galden® HT80

## perfluoropolyether

Galden® HT PFPE are inert, dielectric and high-performance heat transfer fluids with boiling points ranging from 55°C to 270°C. This range is broader than other fluorinated heat transfer fluids and enables PFPE to be used at end-use temperatures up to 290°C.

Syensqo offers a reliable and non-flammable Heat Transfer (HT) media for demanding applications, including:

- Semiconductor
- Chemical
- Pharmaceutical
- Vapor phase heating
- Transformer and super computer cooling
- Recirculating chillers
- Nuclear"

### General

|                 |                                               |
|-----------------|-----------------------------------------------|
| Material Status | • Commercial: Active                          |
| Availability    | • Asia Pacific<br>• Europe<br>• North America |
| Forms           | • Liquid                                      |

### Physical

|                          | Typical Value | Unit                 |
|--------------------------|---------------|----------------------|
| Average Molecular Weight | 430           |                      |
| Density (25°C)           | 1.69          | g/cm <sup>3</sup>    |
| Kinematic Viscosity      | 0.570         | cSt                  |
| Solubility               |               |                      |
| of air                   | 26.0          | ml gas/100 ml liquid |
| of water                 | < 10.0        | wppm                 |
| Surface Tension (25°C)   | 16            | dyne/cm              |
| Vapor Pressure (25°C)    | 105           | torr                 |

### Thermal

|                                         | Typical Value | Unit     |
|-----------------------------------------|---------------|----------|
| Thermal Conductivity (25°C)             | 0.065         | W/m/K    |
| Boiling Point                           | 80            | °C       |
| Heat of Vaporization - at Boiling Point | 17.0          | cal/g    |
| Pour Point                              | -110          | °C       |
| Specific Heat Capacity (25°C)           | 0.23          | cal/g/°C |

### Electrical

|                                          | Typical Value | Unit    |
|------------------------------------------|---------------|---------|
| Volume Resistivity (25°C)                | 1.0E+15       | ohms-cm |
| Dielectric Constant (25°C)               | 1.89          |         |
| Dielectric Strength - 2.54 mm gap (25°C) | 40            | kV      |
| Dissipation Factor - 1 KHz               | 2.0E-4        |         |

### Optical

|                  | Typical Value | Unit | Test method |
|------------------|---------------|------|-------------|
| Refractive Index | 1.28          |      | ASTM D542   |

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### Additional Information

Coefficient of thermal expansion: 0.0011 cm<sup>3</sup>/cm<sup>3</sup>°C

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### Notes

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

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