

TC-7200 Heat Transfer Fluid

Inert dielectric perfluorocarbon (PFC) heat transfer fluid with outstanding dielectric strength. Wide boiling and pour point ranges along with low viscosity and a narrow toxicity profile allow for an expansive range of use. Nonflammable, no auto-ignition point, and noncorrosive.

Applications

- Semiconductor manufacturing
- Supercomputing
- Aviation and military electronics
- Pharmaceutical manufacturing
- Chemical manufacturing

Properties and Usage Benefits

- Compatible with metals, plastics and elastomers
- Low toxicity profile
- Nonflammable for safe working conditions
- Wide range of operating temperatures and pour points
- Residue free and colorless

Material Compatibility

Compatible with most metals, plastics and elastomers.

Safety

HTF fluids are not irritating to the skin and eyes and have a low toxicity profile. HTF heat transfer fluids are not flammable or susceptible to thermal breakdown during storage and normal use.

Properties	
Tyrell Part #	TC-7200
Type	PFC
Boiling point	120 °C
Pour point	< - 80 °C
Density	1.83 g/cm ³
Kinematic viscosity	1.32 cSt
Vapor pressure	46.5 torr
Specific heat	0.24 cal/g·°C
Heat of vaporization at boiling point	19.67 cal/g
Refractive index	1.28
Coefficient of thermal expansion	0.0013 ·°C
Surface tension	15 dyne/cm
Thermal conductivity	0.065 W/m-K
Dielectric strength	39.2 kV
Dielectric constant	2.07
Volume resistance	1·10 ¹⁵ Ohm·cm
Average molecular weight	450 amu
Dissipation factor (1 KHz)	1·10 ⁻⁴
Solubility of water	1.02 ppm (wt)
Solubility of air	26 cm ³ gas
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Solubility of air	26 cm ³ gas