

TECHNICAL DATA SHEET

AD-3283 Fluorinated Engineering Fluid

Description and Applications

AD-3283 is a fully fluorinated fluid, it is non-flammable, chemically inert and thermally stable, and non-conductive and low toxicity. With these properties, AD-3283 is designed for the following industrial and electronic applications:

- Heat transfer fluid for applications in semiconductor, data centers, aviation electronics, power electronics and high-performance computing
- Electronics testing

Physical Properties

Properties	AD-3283 Value
Appearance	Clear, colorless liquid
Average Molecular Weight	521 (g/mol)
Boiling Point (1 atm)	128 (°C)
Pour Point	-65 (°C)
Calculated Critical Temperature	235 (°C)
Vapor Pressure	1.2 (kPa)
Liquid Density	1820 (kg/m ³)
Kinematic Viscosity	0.75 (cSt)
Absolute Viscosity	1.4 (cP)
Liquid Specific Heat	1100 (J/kg-K)
Liquid Thermal Conductivity	0.066 (W/m-K)
Refractive Index	1.28
Surface Tension	14.6 (mN/m)
Volume resistivity	10 ¹⁵ (Ohm-cm)
Ozone Depletion Potential	0
Solubility of Water in Fluid	7ppm
Dielectric Constant	1.9
Dielectric Strength, 0.1" gap	>40
Global Warming Potential (GWP)	~8600

Material Compatibility

AD-3283 is compatible with most metals and plastics, some limitation with elastomers. Contact A.D Dawning Material Co. for further recommendations and technical assistance.

Packaging

5kgs/Can (Drum capacity: 4L)
20kgs/Pail (Drum capacity: 15L)
250kgs/Drum (Drum capacity: 200L)

Storage

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.