

ALPHA-1 FLUID

- Factory Mutual
RECOMMENDED
- High dielectric strength
- Excellent fire safety rating
- Highly efficient cooling properties
- Superior oxidation and stability resistance
- Fluid of choice for original fill or retrofit

Synthetic Fire Resistant Dielectric Fluid for Original or Retrofill of Power Transformers

Alpha-1 Fluid is a fire-resistant dielectric fluid that is unmatched in its ability to cool transformers. Made with synthetic hydrocarbon oils, it has the best heat transfer and low-temperature properties available. Its cooling characteristics make it an excellent choice for original equipment fill and the industry standard for retro-filling mineral oil transformers to upgrade fire safety. Request DSI's Retro-fill guide for further assistance and recommendations.

Due to its lower viscosity, Alpha-1 Fluid flows more easily, thereby cooling your equipment better. Alpha-1 Fluid has outstanding oxidation stability at high temperatures. Alpha-1 Fluid is compatible with conventional transformer oil and other insulating fluids (note: Alpha-1 is not compatible with silicone fluid)



As an FM recommended fluid, please refer to www.fmglobal.com to review supporting articles on how to receive potential cost breaks by using Alpha-1 Fluid in your business.



ISO
9001:2008
REGISTERED

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Applications

- Any dielectric application where the risk of fire must be minimized
- Excels where operating temperatures need to be controlled such as power and distribution transformers, transformer-rectifier sets, load-break and tap-changers
- Chosen for use in extreme high/low temperature applications, viscosity-dampened switchgears and overloaded transformers
- Exceptional heat transfer characteristics ensures equipment maintains low operating temperature

TYPICAL CHARACTERISTICS - Compared with ASTM D5222, Guide for High Fire point Oils

| Characteristic & ASTM method | Alpha-1 | ASTM Spec |
|-------------------------------------|---------|-----------|
| Fire Point, D92, °C. | 308 | 145 |
| Viscosity, D88, cSt. @ 100 °C. | 9.3 | 11.5-14.5 |
| Density @ 20 °C, g/cc | 0.83 | 0.86 |
| Pour Point, D97, °C. | -54 | -40 |
| Color, ASTM units | L0.5 | L1.5 |
| Appearance | Clear | clear |
| Dielectric Breakdown, D1816, kV | 58 | 56 |
| Dissipation Factor, 100 °C, D924, % | 0.01 | 0.30 |
| Acid Value, D664, mg KOH/g | 0.01 | 0.02 |