



TMC-704 Silicone Diffusion Pump Fluid

TMC 704 diffusion pump fluid is a single component, tetramethyl tetraphenyl trisiloxane, clear fluid that is chemically equivalent to Dow Corning® DC-704. Developed for use in high vacuums of 10⁻⁶ Torr (untrapped) and 10⁻⁸ (trapped), TMC 704 performs well in tough, rugged applications with quick pump-down, even after exposure to air at high temperatures. It is thermally and chemically stable, which keeps pump jets free of tars, hard carbon and crystallization.

TMC 704 is used to produce high vacuums in the aerospace and electronics industries and is ideal for metallurgical and research needs. It also works well with vacuum coating operations.

Using TMC Industries' [reclamation services](#), TMC 704 can be reclaimed many times saving you money and disposal costs.



Summary

- Thermally and chemically stable
- Ideal for high gas load applications
- Chemically equivalent to DC-704
- Aerospace and electronics industries
- Superior oxidation, heat, and chemical resistance
- Does not emit oxidation gas
- Quick pump-down
- Pump jets stay clean
- Metallurgical and research needs
- Higher resistance to crystallization
- Does not crack under heat or intake gas unlike petroleum and fatty acid ester pump oils.
- Does not produce acid, tar, pitch or other substances when vacuum is broken during heating.

Specifications

Vapor Pressure @ 25° C (77° F)	10 ⁻⁷ to 10 ⁻⁸ Torr
Viscosity @ 25° C (77° F).....	37 cSt
Boiling Point @ .5 Torr.....	211° C (412° F)
Specific Gravity @ 25° C (77° F)	1.065
RI.....	1.555
Surface Tension.....	33.9
Volume Resistivity (TΩ*m)	0.1 min.
Flash Point.....	210° C (410° F)
Color.....	Light straw

TMC Industries, Inc. • 1423 Mill Lane • Waconia, MN 55387
 800-772-8179 • 952-442-1140 • sales@tmcindustries.com
www.tmcindustries.com