



NORKOOL Industrial Coolants DOWTHERM Heat Transfer Fluids

Dow Fluids Support the World's Largest Offshore Production Platforms

The Most Trusted Fluids for the Oil & Gas Industry

When you're hundreds of miles from shore, you need fluids you can count on to meet the unique demands of offshore production. The Dow Chemical Company has been the world's premier supplier of heat transfer fluids for more than 75 years. With back-integration to key raw materials and a broad distribution network, we can provide the product you need, when you need it.

NORKOOL™ industrial coolants and DOWTHERM® synthetic organic heat transfer fluids set the Oil & Gas Industry standard for protection, performance, and long-term operating economics. That's why companies look to Dow for fluids that can help manage the challenges of ultra-deep offshore reservoirs – including high temperatures and pressure – as well as the need to manage energy use, system maintenance

requirements, and other operating parameters at optimum levels of efficiency.

From platform-wide cooling fluid circulation systems to waste heat recovery systems, Dow heat transfer fluids provide efficient and reliable solutions for the unique demands of offshore production.

NORKOOL Coolants for Circulating Cooling Systems

The deeper the reservoir, the hotter the gas. Heat exchangers containing NORKOOL inhibited glycol-based coolants as an intermediate fluid lower the temperature of the gas coming out of the ground while providing outstanding protection against corrosion and circulation system freeze-up.

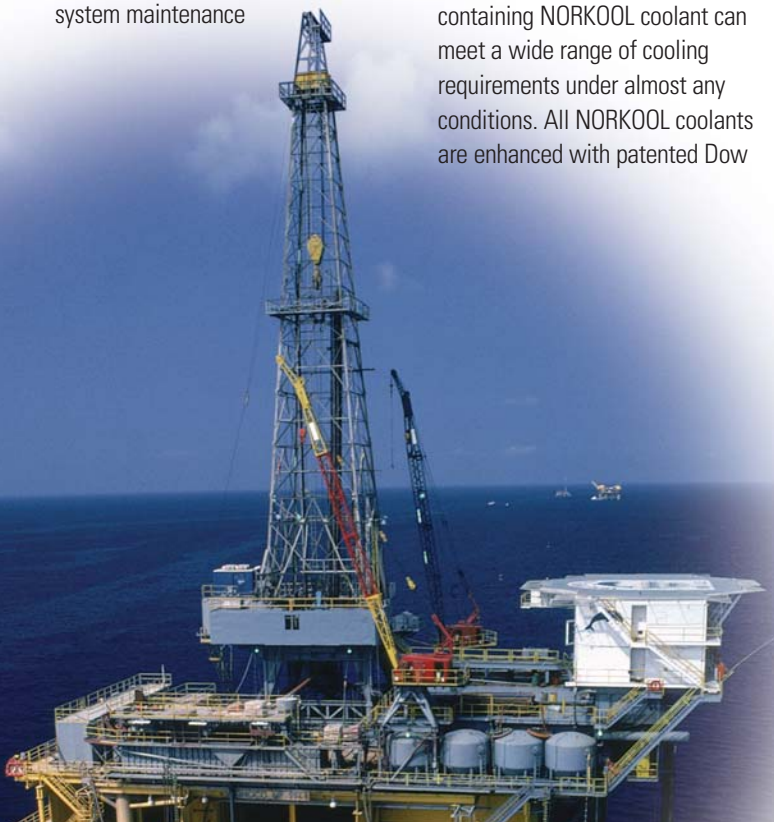
With a broad temperature range, from -60°F (-51°C) to 275°F (135°C), a platform-wide circulating system containing NORKOOL coolant can meet a wide range of cooling requirements under almost any conditions. All NORKOOL coolants are enhanced with patented Dow

anti-scaling technology which acts synergistically with proven NORKOOL corrosion inhibitors to protect steels, cast iron, copper alloys, and solders. Plus, NORKOOL LTC Propylene Glycol (PG)-based coolants are now available for lower toxicity and reduced environmental concern.

DOWTHERM Heat Transfer Fluids for Waste Heat Recovery

Energy efficiency matters in offshore platform operations, especially when the energy used to power the platform comes from the natural gas you're producing. By recovering waste heat from the production process and using it elsewhere on the platform, you maximize energy efficiency. DOWTHERM synthetic organic heat transfer fluids – and especially DOWTHERM Q fluid – offer exceptional thermal stability that translates into more efficient heat transfer, longer fluid life, less system maintenance, and optimum operating economics in waste heat recovery units. With vapor pressure lower than steam, DOWTHERM Q fluid offers long-term advantages in applications with moderate temperature requirements above 500°F (260°C) where a more stable, economical replacement for hot oils is required.

Offshore



DOWTHERM*

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NORKOOL Industrial Coolants

Choose the Right Coolant for Your Application

Ethylene Glycol-based Coolants

	Description
NORKOOL SLH	concentrate
NORKOOL SLH50	pre-diluted 50vol% as EG
NORKOOL SLH40	pre-diluted 40vol% as EG
NORKOOL SLH30	pre-diluted 30vol% as EG

Propylene Glycol-based Coolants

	Description
NORKOOL LTC	concentrate
NORKOOL LTC50	pre-diluted 50vol% as PG
NORKOOL LTC40	pre-diluted 40vol% as PG
NORKOOL LTC30	pre-diluted 30vol% as PG

Circulating System Maintenance Products

Replacement Inhibitors

	Application
NORKOOL Corrosion Inhibitor 213	for pH adjustment
NORKOOL Corrosion Inhibitor 216	phosphate based re-inhibitor
NORKOOL HTF Corrosion Inhibitor 219	azole based re-inhibitor
NORKOOL HTF Corrosion Inhibitor 231	phosphate & nitrite based re-inhibitor
NORKOOL Corrosion Inhibitor 234	nitrite based re-inhibitor

System Cleaners/Degreasers

	Application
NORKOOL System Cleaner	Mixture of chelating agents for rust and scale removal
NORKOOL System Degreaser	Mixture of nonionic and anionic surfactants for grease removal

DOWTHERM Synthetic Organic Fluids

Performance & Recommended Applications[†]

Fluid	Temp. Range, °C ^{††}	(°F ^{††})	High Temperature Thermal Stability	Low Temperature Pumpability	Low Vapor Pressure	Vapor Phase Operation Possible	Low Viscosity	Long-term Economy	Hot/Cold Cycle Operation for Batch Processing	Acute Oral Toxicity ^{†††}
DOWTHERM A	15 to 400	(60 to 750)	▲			▲	▲	▲		■
DOWTHERM G	-7 to 370	(20 to 680)	▲	■	▲		▲	▲		■
DOWTHERM HT	0 to 345	(25 to 650)	▲	■	▲		▲	▲		■
DOWTHERM Q	-35 to 330	(-30 to 625)	▲	●	▲		▲	▲	●	■
DOWTHERM RP	-4 to 350	(-20 to 660)	▲	■	▲		▲	▲		
DOWTHERM MX	-23 to 330	(-10 to 625)	▲	●	▲		▲	▲	●	■
DOWTHERM T	-10 to 288	(14 to 550)	■	●	▲		●	●		
DOWTHERM J	-80 to 315	(-110 to 600)	▲	▲		▲	▲	▲	▲	■

[†] Performance within fluid operating range.

▲ Outstanding ● Excellent ■ Good

^{††} Liquid phase temperature range. Vapor phase operating range for DOWTHERM A fluid is 257°C (495°F) to 400°C (750°F). For DOWTHERM J fluid, 181°C (358°F) to 315°C (600°F).

^{†††} When used in industrial applications.

To Learn More...

contact Dow toll-free at:

1-800-447-4369 (U.S. and Canada)

Or call 989-832-1560 (Other Global Areas)

www.norkool.com www.dowtherm.com

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