



DOWCAL™ 200E

Borate Free Inhibited Propylene Glycol-based Heat Transfer Fluid

DOWCAL™ 200E heat transfer fluid is a clear propylene glycol-based liquid formulated with high quality corrosion inhibitors for optimum system performance. It is an optimal solution for when the freezing point of water is not low enough to allow its use in certain applications. Diluted with water, DOWCAL™ 200E offer reduced viscosity, increased heat capacity and thermal conductivity, and take advantage of the excellent heat transfer properties of water over a broad range of temperatures. Low acute toxicity makes DOWCAL™ 200E especially suitable for applications where toxicity is a concern.

This next generation of **DOWCAL**TM **Heat Transfer Fluids** are borate free and contain inhibitors that offer best in class corrosion protection. The components of **DOWCAL**TM **200E** are carefully selected based on sustainable, environmental and safety criteria and are combined to help maximize corrosion protection at a broad material compatibility.

Typical applications

- Heating and Cooling Applications Ground Source Heat Pumps, HVAC (Heating, Ventilation & Air Conditioning)
- Industrial applications Process chilling, batch processing systems, Heat recovery, freeze protection
- **Construction applications** Snow melting systems, Floor heating, Ice skating rinks, Wind turbines, Electronic systems and Data centers.

Key Benefits

- Long-lasting performance DOWCAL 200E can be operated for many years (10-25 years) in properly maintained systems
- Excellent corrosion protection DOWCAL 200E provides optimal protection to metallic parts of process equipment improving process efficiency and reducing maintenance costs.
- Free of phosphate, nitrite, nitrate, borates and CMR (carcinogenic, mutagenic, and reprotoxic) components
- Low toxicity

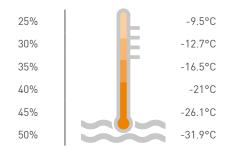


Packaging

- Can 25 Litre
- Drum 200 Litre
- IBC 1000 Litre
- Bulk-deliveries

All packaging can be ordered at requested concentration.

Freezing Point °C



Denmark

Univar Solutions A/S Islands Brygge 43 DK-2300 Copenhagen S T: +45 35 37 12 44

E: univar.dk@univarsolutions.com

www.univarhtf.dk

Norway

Rosenholmveien 25 NO-1414 Trollåsen Tel: +47 22 88 16 00 E: ordre.no@univarsolutions.com

www.univarhtf.no

Sweden

Kungsgatan 6 SE-211 49 Malmö Tel: +46 40 35 28 00

E: order.se@univarsolutions.com

www.univarhtf.se





Typical Freezing, Boiling Points and other properties of DOWCAL™ 200E

| DOWCAL™ 200E | DOWCAL™ 200E | FREEZING POINT | REFRACTIVE INDEX | BOILING POINT | DENSITY | DYN. VISCOSITY | KIN. VISCOSITY |
|--------------|--------------|----------------|------------------|---------------|--------------------------|----------------|----------------|
| VOL.% | WT. % | °C | @ 20°C | °C @ 1 BARA | G/CM ³ @ 20°C | MPA.S @ 20°C | MM²/S @ 20°C |
| 5.0 | 5.2 | -1.2 | 1.3392 | 99.6 | 0.998 | 1.25 | 1.26 |
| 10.0 | 10.4 | -2.8 | 1.3451 | 100.0 | 1.005 | 1.51 | 1.50 |
| 15.0 | 15.5 | -4.7 | 1.3510 | 100.6 | 1.011 | 1.82 | 1.80 |
| 20.0 | 20.5 | -7.0 | 1.3568 | 101.3 | 1.016 | 2.19 | 2.15 |
| 21.0 | 21.5 | -7.5 | 1.3580 | 101.4 | 1.017 | 2.27 | 2.23 |
| 22.0 | 22.5 | -8.0 | 1.3591 | 101.5 | 1.019 | 2.36 | 2.31 |
| 23.0 | 23.5 | -8.6 | 1.3603 | 101.6 | 1.020 | 2.45 | 2.40 |
| 24.0 | 24.5 | -9.2 | 1.3614 | 101.7 | 1.021 | 2.54 | 2.49 |
| 25.0 | 25.5 | -9.8 | 1.3626 | 101.7 | 1.022 | 2.64 | 2.58 |
| 26.0 | 26.5 | -10.4 | 1.3637 | 101.8 | 1.022 | 2.74 | 2.68 |
| 27.0 | 27.5 | -11.0 | 1.3649 | 101.9 | 1.023 | 2.84 | 2.77 |
| 28.0 | 28.5 | -11.7 | 1.3661 | 102.0 | 1.024 | 2.95 | 2.88 |
| 29.0 | 29.5 | -12.4 | 1.3672 | 102.0 | 1.025 | 3.06 | 2.98 |
| 30.0 | 30.5 | -13.0 | 1.3683 | 102.1 | 1.026 | 3.18 | 3.09 |
| 31.0 | 31.5 | -13.8 | 1.3695 | 102.2 | 1.027 | 3.30 | 3.21 |
| 32.0 | 32.5 | -14.5 | 1.3706 | 102.2 | 1.028 | 3.42 | 3.33 |
| 33.0 | 33.4 | -15.3 | 1.3718 | 102.3 | 1.029 | 3.55 | 3.45 |
| 34.0 | 34.4 | -16.1 | 1.3729 | 102.4 | 1.030 | 3.69 | 3.58 |
| 35.0 | 35.4 | -16.9 | 1.3740 | 102.5 | 1.030 | 3.83 | 3.71 |
| 36.0 | 36.4 | -17.7 | 1.3751 | 102.5 | 1.031 | 3.97 | 3.85 |
| 37.0 | 37.4 | -18.6 | 1.3763 | 102.6 | 1.032 | 4.12 | 4.00 |
| 38.0 | 38.4 | -19.4 | 1.3774 | 102.7 | 1.033 | 4.28 | 4.15 |
| 39.0 | 39.3 | -20.4 | 1.3785 | 102.8 | 1.033 | 4.45 | 4.30 |
| 40.0 | 40.3 | -21.3 | 1.3796 | 102.9 | 1.034 | 4.62 | 4.46 |
| 41.0 | 41.3 | -22.2 | 1.3807 | 103.0 | 1.035 | 4.79 | 4.63 |
| 42.0 | 42.3 | -23.2 | 1.3818 | 103.1 | 1.036 | 4.98 | 4.80 |
| 43.0 | 43.3 | -24.2 | 1.3829 | 103.2 | 1.036 | 5.17 | 4.99 |
| 44.0 | 44.2 | -25.3 | 1.3840 | 103.3 | 1.037 | 5.36 | 5.17 |
| 45.0 | 45.2 | -26.3 | 1.3851 | 103.5 | 1.038 | 5.57 | 5.37 |
| 46.0 | 46.2 | -27.4 | 1.3862 | 103.6 | 1.038 | 5.78 | 5.57 |
| 47.0 | 47.2 | -28.5 | 1.3873 | 103.8 | 1.039 | 6.01 | 5.78 |
| 48.0 | 48.2 | -29.7 | 1.3883 | 103.9 | 1.039 | 6.24 | 6.00 |
| 49.0 | 49.1 | -30.8 | 1.3894 | 104.1 | 1.040 | 6.48 | 6.23 |
| 50.0 | 50.1 | -32.0 | 1.3905 | 104.3 | 1.040 | 6.73 | 6.47 |
| 51.0 | 51.1 | -33.3 | 1.3915 | 104.5 | 1.041 | 6.99 | 6.71 |
| 52.0 | 52.1 | -34.5 | 1.3926 | 104.7 | 1.041 | 7.26 | 6.97 |
| 53.0 | 53.0 | -35.8 | 1.3936 | 104.9 | 1.042 | 7.54 | 7.23 |
| 54.0 | 54.0 | -37.1 | 1.3947 | 105.1 | 1.042 | 7.83 | 7.51 |
| 55.0 | 55.0 | -38.5 | 1.3957 | 105.4 | 1.043 | 8.13 | 7.80 |
| 60.0 | 59.9 | -45.6 | 1.4008 | 106.6 | 1.045 | 9.84 | 9.42 |
| 65.0 | 64.8 | <-51 | 1.4057 | 108.0 | 1.047 | 11.9 | 11.4 |
| 70.0 | 69.7 | <-51 | 1.4104 | 109.5 | 1.048 | 14.5 | 13.9 |
| 75.0 | 74.6 | <-51 | 1.4150 | 111.1 | 1.049 | 17.7 | 16.9 |
| 80.0 | 79.6 | <-51 | 1.4193 | 113.2 | 1.049 | 21.8 | 20.7 |
| 85.0 | 84.6 | <-51 | 1.4234 | 116.2 | 1.048 | 27.0 | 25.7 |
| 90.0 | 89.7 | <-51 | 1.4272 | 120.9 | 1.047 | 34.1 | 32.6 |
| 95.0 | 94.8 | <-51 | 1.4308 | 128.8 | 1.045 | 45.1 | 43.1 |
| 100.0 | 100.0 | <-51 | 1.4340 | 141.7 | 1.042 | 68.9 | 66.1 |
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Authorized dealer:

Guldager A/S

Hejrevang 1-5

DK - 3450 Allerød

+45 48134400 | guldager@guldager.com | www.guldager.com