



## **EUROTHERM® D12**

“FOOD GRADE” Single Fluid for Heating and Cooling with NSF HT1 Approval.

---

Temperature Range

**-86°C to 265°C | -122°F to 509°F**



## ABOUT **PRODUCT**

**EUROTHERM® D12** is an NSF-certified food-grade heat transfer fluid, ensuring efficient cooling, moderate heating, and exceptional thermal performance for food processing applications.



## TYPICAL **PROPERTIES**

Appearance	Clear, water-white liquid
Composition	Synthetic hydrocarbons
Recommended bulk temperature	265°C (509°F)
Maximum film temperature	280°C (536°F)
Kinematic viscosity @ 40°C	DIN 51562 1.2 CST
Density@15°C	DIN 51757 776
Normal boiling point	195°C (383°F)
Flash point PMCC (ASTM D93)	Min 62°C (144°F)
Pour point DIN ISO 3016	-85°C
Auto ignition temperature (ASTM E659)	Above 275°C (527°F)
Moisture content	DIN 51777-1 70 PPM
Coefficient of thermal expansion at 100°C	0.00112/°C (0.00062/°F)
Heat of vaporization at maximum use temperature	198 kJ/kg (85.2 Btu/lb)
Total acidity (ASTM D664)	<0.2 mg KOH/g
Chlorine content DIN 51777-3	<0.005%
Copper corrosion EN ISO 2160	<1a

**Note:** These data are based on samples tested in the laboratory and are not guaranteed for all samples.

# KEY ADVANTAGES OF **EUROTHERM D12**

01

**Remarkable Heat Transfer Properties:** EUROTHERM® D12 excels in efficiently transferring heat, ensuring optimal thermal performance.

02

**Accurate Temperature Control:** The fluid's ability to function effectively in the vapor phase allows for precise temperature management, crucial for demanding processes.

03

**Highest Thermal Stability and Anti Oxidation Technology**

04

**BCR Technology Create Turbulent Flow to Remove Carbon from the Fluid:** While operation & give a sustainable lifelong quality and longest life of the fluid.

05

**Low Viscosity with Desire Thermal Conductivity Ensure Lowest Pumping Energy use and Highest Heat Transfer Ratio.**

06

**Selective Synthetic Additives Formulation Ensure a Long Life and High Thermal Conductivity.**

Highest Thermal Stability and Anti Oxidation Technology



BCR Technology Create Turbulent Flow to Remove Carbon from the Fluid

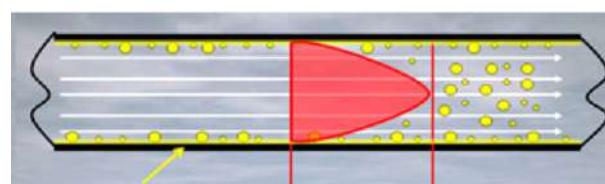


Figure 1 – Laminar flow leaves back a lay of particles over 0,01 mm.

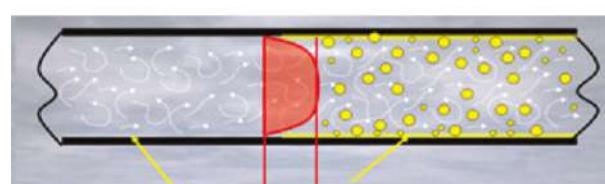


Figure 2 – Turbulent flow leaves back a lay of particles under 0,001 mm.

## TECHNICAL **APPLICATION ADVICE**

**EUROTHERM® D12** is a food-grade single fluid designed for both heating and cooling applications, making it highly suitable for industries that require simultaneous thermal processes. With an impressive temperature range of -85°C to 160°C without the need for a pressurization system, and up to 260°C when pressurized by nitrogen blanketing.

## APPLICATION **METHOD & INDUSTRIES**

Indirect close loop Thermic Fluid Heater up to **320°C** Temperature.

Pharmaceutical

Chemical Processing

Food & Beverages

& many other Processing Industries



**WINZZOL®**  
PETROCHEMICALS PVT LTD

# PROPERTIES AT CERTAIN TEMPERATURE

Temperature	Liquid Density	Specific Heat	Thermal Conductivity	Kinematic Viscosity	Vapour Pressure
°C	kg/m <sup>3</sup>	kJ/Kg °K	W/(m·K)	cSt	kPa
-85	835	1.778	0.142	342	-
-70	825	1.788	0.143	68.0	-
-60	820	1.854	0.138	30.0	-
-50	815	1.892	0.135	14.2	-
-40	806	1.918	0.133	8.50	-
-30	800	1.950	0.132	5.68	-
-20	791	1.980	0.130	4.00	-
-10	785	2.020	0.127	3.08	-
0	778	2.050	0.125	2.44	-
10	770	2.092	0.124	2.00	-
20	764	2.120	0.121	1.67	-
30	756	2.165	0.118	1.42	-
40	748	2.202	0.116	1.29	0.34
50	742	2.245	0.115	1.06	0.50
60	733	2.268	0.112	0.94	0.80
70	726	2.320	0.109	0.88	1.30
80	718	2.362	0.107	0.76	2.20
90	710	2.410	0.105	0.70	3.70
100	704	2.454	0.102	0.64	5.68
110	696	2.500	0.100	0.58	8.32
120	690	2.540	0.097	0.53	11.8
130	682	2.594	0.094	0.52	16.6
140	674	2.640	0.091	0.46	23.2
150	664	2.695	0.090	0.44	31.5
160	656	2.742	0.088	0.40	42.4
170	647	2.800	0.085	0.37	55.3
180	636	2.850	0.083	0.36	71.6
190	628	2.908	0.080	0.34	91.0
200	618	2.963	0.077	0.32	118
210	607	3.020	0.076	0.30	140
220	598	3.075	0.074	0.29	178
230	587	3.128	0.072	0.28	216
240	576	3.172	0.068	0.26	262
250	564	3.240	0.065	0.25	302
260	552	3.274	0.063	0.24	370

"The property mentioned here is based on the tested sample and may vary slightly across different samples."

# LIFETIME CARING PARTNER

Our highly experienced team is committed to providing comprehensive support tailored to your needs. We offer:



## Start-up Guidance

Expert assistance to ensure a smooth initial setup.



## Operational Training

Customized training programs to equip your team with essential skills.



## Sample Testing and Analysis

In-depth testing services to evaluate fluid performance and ensure quality.



## Safety Awareness Training

Programs designed to promote safety and compliance in all operations.



## System Selection and Pipeline Design Support

Expert advice to help you choose the right system & optimize pipeline design.



## Fluid Flushing & Refill Support

Efficient services to maintain system performance and fluid integrity.

With our support, you can optimize operations and enhance safety and efficiency in your processes.



American  
Petroleum  
Institute



## ABOUT **WINZZOL**

WINZZOL's EUROTHERM "HEAT TRANSFER FLUIDS" are expertly engineered for the efficient indirect transfer of process heat across various applications. These fluids excel in both single- and multiple-station heat-using systems, providing exceptional thermal stability throughout a wide temperature range.

