



DURATHERM
Heat Transfer Fluids

DURATHERM XLT-2

Engineered for long-term operation in heat transfer applications requiring precise temperature control ranging from -84°C (-120°F) up to 177°C (350°F).

Ideal for near-cryogenic applications Duratherm XLT-2's economical cost and wide operating temperature also makes it well-suited for heating and cooling applications found in the food processing, pharmaceutical, chemical and botanical extraction industries.

APPLICATION

Duratherm XLT-2 is a liquid phase heat transfer fluid with outstanding heating and cooling capabilities throughout a wide temperature range. This fluid is ideal for heating and cooling applications with working range as low as -84°C with most efficient heat transfer between -60°C and 177°C . It can also be used as a secondary coolant in refrigeration loops where a wide ranging fluid is required.

TROUBLE-FREE OPERATION

Duratherm XLT-2 heat transfer fluid does not require monitoring of concentration or additive levels.

ENVIRONMENTAL

Duratherm XLT-2 is plant and user friendly. Low odors, high flash point and no SARA reportable substances makes Duratherm XLT-2 the wise choice for worker health and safety.

DISPOSAL

After its extensive service life, Duratherm XLT-2 can typically be disposed of through local waste oil recycling programs. Check your local regulations.

1 800 446 4910

www.durathermfluids.com

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- Maximum temperature: 177°C/350°F
- Minimum temperature: -84°C/-120°F
- Flash point 63°C/145°F
- Extreme low-temperature capabilities
- Stable and non-corrosive
- Properties remain consistent over temperature range
- Includes free fluid analysis and tech support



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TEMPERATURE RATINGS

Maximum Bulk/Use Temp.	177°C	350°F
Minimum Bulk/Use Temp.	-84°C	-120°F
Maximum Film Temp.	204°C	400°F
Pour Point ASTM D97	-90°C	-130°F

SAFETY DATA

Flash Point ASTM D93	63°C	145°F
Fire Point ASTM D92	70°C	158°F
Autoignition ASTM E-659-78	275°C	527°F

THERMAL PROPERTIES

Thermal Conductivity	W/m K	BTU/hr F ft
-84°C / -120°F	0.124	0.072
-40°C / -40°F	0.119	0.069
0°C / 32°F	0.116	0.067
65°C / 150°F	0.102	0.059
Heat Capacity	kJ/kg K	BTU/lb F
-84°C / -120°F	1.695	0.405
-40°C / -40°F	1.863	0.445
0°C / 32°F	1.946	0.465
65°C / 150°F	2.277	0.544

PHYSICAL PROPERTIES

Appearance: clear liquid, slight yellow tint		
Viscosity ASTM D445		
cSt at -84°C / -120°F	392	
cSt at -40°C / -40°F	8.68	
cSt at -18°C / 0°F	3.78	
cSt at 0°C / 32°F	2.41	
cSt at 65°C / 150°F	0.90	
Density ASTM D1298	kg/m ³	lb/ft ³
-84°C / -120°F	842.09	52.57
-40°C / -40°F	811.01	50.63
0°C / 32°F	796.75	49.74
65°C / 150°F	744.21	46.46
Vapor Pressure ASTM D2879	kPa	psi
-120°F / -84°C	0.00	0.00
15°C / 60°F	0.00	0.00
38°C / 100°F	0.22	0.032
65°C / 150°F	1.19	0.173
176°C / 350°F	69.22	10.04
Normal Boiling Point	195°C	383°F

The values quoted are typical of normal production. They do not constitute a specification.

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PROPERTY VS. TEMPERATURE CHART METRIC

TEMPERATURE (Celsius)	DENSITY (kg/m ³)	KINEMATIC VISCOSITY (Centistoke)	DYNAMIC VISCOSITY (Centipoise)	THERMAL CONDUCTIVITY (W/m K)	HEAT CAPACITY (kJ/kg K)	VAPOUR PRESSURE (kPa)
-94	848.57	2059.20	1747.38	0.126	1.662	0.00
-90	846.55	967.23	818.81	0.125	1.682	0.00
-80	839.49	210.87	177.02	0.124	1.712	0.00
-70	832.43	67.62	56.29	0.123	1.752	0.00
-60	825.36	28.61	23.61	0.121	1.792	0.00
-50	818.30	14.65	11.99	0.120	1.822	0.00
-40	812.25	8.68	7.05	0.119	1.862	0.00
-30	805.18	5.70	4.59	0.117	1.902	0.00
-20	798.12	4.05	3.23	0.116	1.942	0.00
-10	791.06	3.05	2.41	0.115	1.982	0.00
0	783.99	2.41	1.89	0.113	2.022	0.01
10	776.93	1.96	1.52	0.112	2.052	0.03
20	768.86	1.63	1.25	0.110	2.092	0.06
30	761.80	1.40	1.07	0.109	2.132	0.13
40	754.73	1.22	0.92	0.107	2.172	0.26
50	747.67	1.07	0.80	0.105	2.212	0.48
60	739.60	0.95	0.70	0.104	2.252	0.85
70	732.53	0.85	0.62	0.102	2.292	1.45
80	724.46	0.77	0.56	0.100	2.332	2.37
90	716.39	0.70	0.50	0.098	2.372	3.73
100	709.33	0.64	0.45	0.097	2.412	5.70
110	701.25	0.59	0.41	0.095	2.452	8.48
120	693.18	0.54	0.37	0.093	2.503	12.28
130	684.10	0.50	0.34	0.091	2.543	17.42
140	676.03	0.47	0.32	0.089	2.583	24.16
150	666.95	0.43	0.29	0.087	2.623	32.87
160	658.88	0.40	0.26	0.085	2.673	43.86
170	649.80	0.38	0.25	0.083	2.713	57.72
180	640.72	0.35	0.22	0.081	2.753	74.75

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PROPERTY VS. TEMPERATURE CHART METRIC

TEMPERATURE (Fahrenheit)	DENSITY (lb/ft ³)	KINEMATIC VISCOSITY (Centistoke)	DYNAMIC VISCOSITY (Centipoise)	THERMAL CONDUCTIVITY (BTU/hr-F-ft)	HEAT CAPACITY (BTU/lb-F)	VAPOUR PRESSURE (Psia)
-137	52.97	2059.20	1747.23	0.073	0.397	0.00
-120	52.57	392.04	330.13	0.072	0.405	0.00
-100	52.06	95.34	79.51	0.071	0.415	0.00
-80	51.66	33.96	28.10	0.070	0.425	0.00
-60	51.16	15.64	12.82	0.070	0.435	0.00
-40	50.65	8.68	7.04	0.069	0.445	0.00
-20	50.15	5.47	4.39	0.068	0.455	0.00
0	49.74	3.78	3.01	0.067	0.465	0.00
20	49.24	2.80	2.21	0.066	0.475	0.00
40	48.73	2.19	1.71	0.065	0.486	0.00
60	48.23	1.76	1.36	0.064	0.496	0.01
80	47.73	1.48	1.13	0.063	0.507	0.02
100	47.22	1.25	0.95	0.062	0.518	0.03
120	46.72	1.09	0.82	0.061	0.528	0.07
140	46.21	0.95	0.70	0.060	0.539	0.12
160	45.71	0.84	0.62	0.059	0.550	0.22
180	45.10	0.76	0.55	0.058	0.560	0.38
200	44.60	0.68	0.49	0.057	0.571	0.63
220	43.99	0.62	0.44	0.055	0.582	0.99
240	43.49	0.56	0.39	0.054	0.593	1.52
260	42.88	0.52	0.36	0.053	0.604	2.26
280	42.28	0.48	0.33	0.052	0.615	3.26
300	41.77	0.44	0.29	0.051	0.627	4.60
320	41.07	0.40	0.26	0.049	0.638	6.37
340	40.46	0.38	0.25	0.048	0.650	8.61
360	39.86	0.35	0.22	0.047	0.661	11.48

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