



DURATHERM
Heat Transfer Fluids

DURATHERM XLT-120

Engineered for long-term operation in heat transfer applications requiring precise temperature control ranging from -84°C (-120°F) up to 65°C (150°F).

Ideal for cryogenic applications Duratherm XLT-120's economical cost and wide operating temperature also makes it well-suited for heating and cooling applications found in the food processing, pharmaceutical and chemical industries.

TROUBLE-FREE OPERATION

Duratherm XLT-120 heat transfer fluid does not require monitoring of concentration or additive levels.

LASTS LONGER

Duratherm XLT-120 utilizes our exclusive additive system for long-term, trouble-free operation at any temperature, high or low.

ENVIRONMENTAL

Duratherm XLT-120 is plant and user friendly. Low odors, high flash point and no SARA reportable substances makes Duratherm XLT-120 the wise choice for worker health and safety.

DISPOSAL

After its extensive service life, Duratherm XLT-120 can typically be disposed of through local waste oil recycling programs. Check your local regulations.

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- Maximum temperature: 65°C/150°F
- Minimum temperature: -84°C/-120°F
- Flash point 49°C/120°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.	65°C	150°F
Minimum Bulk/Use Temp.	-84°C	-120°F
Maximum Film Temp.	82°C	180°F
Pour Point ASTM D97	-90°C	-130°F

SAFETY DATA

Flash Point ASTM D92	49°C	120°F
Fire Point ASTM D92	60°C	140°F
Autoignition ASTM E-659-78	237°C	459°F

THERMAL PROPERTIES

Thermal Conductivity	W/m K	BTU/hr F ft
-84°C / -120°F	0.145	0.084
-40°C / -40°F	0.141	0.082
0°C / 32°F	0.138	0.080
65°C / 150°F	0.133	0.077
Heat Capacity	kJ/kg K	BTU/lb F
-84°C / -120°F	1.806	0.430
-40°C / -40°F	1.898	0.456
0°C / 32°F	1.989	0.478
65°C / 150°F	2.158	0.516

PHYSICAL PROPERTIES

Appearance: clear liquid, slight yellow tint		
Viscosity ASTM D445		
cSt at -84°C / -120°F	44.04	
cSt at -40°C / -40°F	4.53	
cSt at -18°C / 0°F	2.48	
cSt at 0°C / 32°F	1.73	
cSt at 65°C / 150°F	0.76	
Density ASTM D1298	kg/m ³	lb/ft ³
-84°C / -120°F	843.15	52.64
-40°C / -40°F	831.09	51.88
0°C / 32°F	820.13	51.20
65°C / 150°F	802.32	50.08
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	0.17	0.02
65°C / 150°F	27.64	4.01
Distillation Range ASTM D2887	10%	83°C (181°F)
	90%	285°C (546°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)	VAPOR PRESSURE (kPa)
-85	843.42	46.07	38.86	0.145	1.808	0.00
-75	840.68	22.33	18.77	0.144	1.827	0.00
-65	837.94	12.56	10.52	0.143	1.847	0.00
-55	835.20	7.88	6.58	0.142	1.867	0.00
-45	832.46	5.36	4.46	0.142	1.888	0.00
-35	829.72	3.88	3.22	0.141	1.909	0.00
-25	826.98	2.95	2.44	0.140	1.931	0.00
-15	824.24	2.33	1.92	0.139	1.954	0.00
-5	821.50	1.90	1.56	0.138	1.977	0.00
5	818.76	1.59	1.30	0.138	2.001	0.00
15	816.02	1.35	1.10	0.137	2.025	0.00
25	813.28	1.18	0.96	0.136	2.050	0.00
35	810.54	1.04	0.84	0.135	2.076	0.07
45	807.80	0.93	0.75	0.134	2.103	0.61
55	805.06	0.84	0.68	0.134	2.130	4.25
65	802.32	0.77	0.62	0.133	2.158	27.64

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PROPERTY VS. TEMPERATURE CHART STANDARD

TEMPERATURE (Fahrenheit)	DENSITY (lb/ft ³)	KINEMATIC VISCOSITY (Centistoke)	DYNAMIC VISCOSITY (Centipoise)	THERMAL CONDUCTIVITY (BTU/hr-F-ft)	HEAT CAPACITY (BTU/lb-F)	VAPOR PRESSURE (Psia)
-120	52.64	44.04	37.16	0.084	0.430	0.00
-110	52.55	29.00	24.43	0.083	0.433	0.00
-100	52.45	20.11	16.90	0.083	0.437	0.00
-90	52.36	14.56	12.22	0.083	0.440	0.00
-80	52.26	10.93	9.16	0.083	0.443	0.00
-70	52.17	8.46	7.08	0.082	0.446	0.00
-60	52.07	6.73	5.61	0.082	0.449	0.00
-50	51.98	5.47	4.56	0.082	0.452	0.00
-40	51.88	4.53	3.77	0.082	0.456	0.00
-30	51.79	3.82	3.17	0.081	0.459	0.00
-20	51.69	3.27	2.71	0.081	0.462	0.00
-10	51.60	2.83	2.34	0.081	0.465	0.00
0	51.50	2.48	2.05	0.080	0.468	0.00
10	51.41	2.20	1.81	0.080	0.471	0.00
20	51.31	1.96	1.61	0.080	0.475	0.00
30	51.22	1.77	1.45	0.080	0.478	0.00
40	51.12	1.60	1.31	0.079	0.481	0.00
50	51.03	1.46	1.20	0.079	0.484	0.00
60	50.93	1.34	1.10	0.079	0.487	0.00
70	50.84	1.24	1.01	0.079	0.490	0.00
80	50.74	1.15	0.94	0.078	0.493	0.00
90	50.65	1.07	0.87	0.078	0.497	0.00
100	50.55	1.00	0.81	0.078	0.500	0.02
110	50.46	0.94	0.76	0.078	0.503	0.06
120	50.36	0.89	0.72	0.077	0.506	0.16
130	50.27	0.84	0.68	0.077	0.509	0.47
140	50.17	0.80	0.64	0.077	0.512	1.37
150	50.08	0.76	0.61	0.077	0.516	4.01

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