



# HEAT TRANSFER OIL

## ADDINOL HEAT TRANSFER OIL XW 15

### PRODUCT DESCRIPTION

ADDINOL Heat transfer oil XW 15 is a synthetic fluid based on alcyated aromatic hydrocarbons (alkylbenzene).

### APPLICATION

- Excellent suitability as heat transfer medium in heating and combined heating-cooling systems
- Applicable at flow temperatures of up to +300 °C, up to +320°C for a short period and in systems without oxygen supply
- Suitable in applications where a direct heating is impossible
- Usable where an open, pressure-less construction of pressure units (steam or hot water) is preferred
- Particular suitability for careful and/or safe heating of dangerous or sensitive substances
- Long term application also at a stable and high thermal loads

### SPECIFICATIONS

Meets the requirements of the following specifications:

- DIN 51522

### PLEASE NOTE !

**To avoid oxidative damages of the heat transfer oil, the compensation reservoir should be filled with an inert gas (typically with nitrogen).**

There is no direct relation between the characteristic value "Flash point" specified in the table below and the permissible application temperature of the heat transfer oil. In practice all heat transfer systems are operated at temperatures which lie above the mentioned characteristic values.

### CHARACTERISTICS

- Highest thermal stability of the base components
- Very low tendency to carbonization
- High initial boiling point under atmospheric pressure
- Good viscosity-temperature characteristics
- Stable flash point
- Outstanding cleaning efficiency

### ADVANTAGES AND BENEFITS

- **Clearly extended oil operating time compared to mineral based heat transfer oils**
- **Considerably lower tendency to form deposits compared to mineral oils; especially for long term application**
- **Safe heating in closed systems**
- **Lower energy consumption during heating process and under extreme conditions**
- **Durable reliable application**
- **Dissolution of deposits and therefore better heat transfer**

### TYPICAL PARAMETERS

Feature			Heat transfer oil XW 15	Method acc. to
Colour, appearance			clear, brownish	visual
Colour			3.0	DIN ISO 2049
Temperature range	°C		-30 up to +300	
Density	at 15°C	kg/m <sup>3</sup>	890	DIN 51757
Viscosity	at 40°C	mm <sup>2</sup> /s	23	DIN ISO 51562-1
<b>Flash point</b>	<b>COC</b>	<b>°C</b>	<b>210</b>	DIN EN 2592
Flash point	PM	°C	186	DIN EN ISO 2719
<b>Ignition temperature</b>		<b>°C</b>	<b>350</b>	DIN 51794
Pour point		°C	-57	DIN ISO 3016
Initial boiling point		°C	348	ASTM D 1160
Coke residue acc. to Conradson		%	< 0.01	DIN 51551-1
Content of water		mg / kg	30	DIN EN ISO 12937
Max. film temperature		°C	320	



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## DELIVERY

Delivery preferable in drums and 20 l cans.

## APPLICATION TECHNICAL PROPERTIES

Temperature °C	vapour pressure kPa	Density kg/m <sup>3</sup>	specific heat kJ/kg*K	heat conductance W/mK	dyn. viscosity mPas	Coefficient of expansion 10 <sup>-4</sup> 1/K
- 20	-	913.3	0.835	0.1362	1571	-6.187
0	-	900.7	1.172	0.1349	215.2	6.414
20	-	887.3	1.462	0.1336	53.80	6.641
40	-	875.1	1.708	0.1324	19.80	-
60	-	862.0	1.915	0.1312	9.353	-
80	-	848.8	2.088	0.1300	5.229	7.321
100	-	835.5	2.230	0.1288	3.279	7.548
120	-	822.0	2.346	0.1277	2.233	-
140	0.014	808.3	2.439	0.1266	1.615	8.002
160	0.046	794.5	2.515	0.1255	1.224	-
180	0.127	780.6	2.577	0.1244	0.960	-
200	0.313	766.5	2.630	0.1234	0.776	8.682
220	0.698	752.2	2.678	0.1224	0.642	8.909
240	1.42	737.8	2.724	0.1214	0.542	-
260	2.69	723.3	2.774	0.1205	0.465	9.249
280	4.76	708.6	2.831	0.1196	0.405	-
300	7.92	693.7	2.900	0.1187	0.357	9.816

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We at ADDINOL develop and produce more than 600 high-performance lubricants of the new generation. Among these are automotive lubricants for highest demands and pioneering developments for industrial applications. Our customers all over the world benefit from the high and stable quality of our ADDINOL high-performance lubricants, our know-how and the individual customer advisory service of our competent experts. Our company has world wide activities. ADDINOL high-performance lubricants are distributed by more than 70 international partners.

The data given in this product sheet represent our current level of knowledge and experience. Due to the various specific application they do, however, not discharge the user from his own examination. The information provided herein may not be used to derive a legally binding warranty of specific properties or the suitability for a certain purpose of application. Detailed security-concerning and toxicological data as well as security instructions for each product can be taken from the corresponding Material Safety Data Sheets (MSDS). High-performance lubricants from ADDINOL are under continuous development. Therefore, ADDINOL Lube Oil GmbH keeps the right to change technical data in this product data sheet without notification. In case of doubt, please do not hesitate to contact our customers' advisory service.