



WATER MISCIBLE COOLANTS

ADDINOL PENTA-COOL WS 250

PRODUCT DESCRIPTION

ADDINOL Penta-Cool WS 250 is a water-soluble coolant concentrate (grinding agent for steel and grey cast iron) free from mineral oil and nitrite.

APPLICATION

- Universally applicable as cooling lubricant
- Very good for the grinding of ferrous material (steel and grey cast iron)
- NOT suitable for the processing of aluminium and non-ferrous materials

PLEASE NOTE

When mixing, add concentrate under constant agitation to the water, never vice versa!

TYPE

- Synthetic
- Mineral oil content: 0%

DELIVERY

Delivery preferable in drums and 20 l cans.

OPERATION CONCENTRATION

Depending on application:

- > 3.0% for grinding processes of steel
- > 4.0% for grinding processes of grey cast iron

SHELF LIFE OF CONCENTRATE

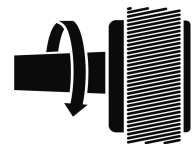
Storable at room temperature in closed original package up to 12 months after date of production.

CHARACTERISTICS

- Free from nitrite
- Improved non-ferrous inhibitor for cooling systems made of non-ferrous metals
- Low foaming tendency
- After the evaporation of water an oily film remains on the workpiece

ADVANTAGES AND BENEFITS

- No health hazards by nitriding and nitrosable ingredients
- Protection of pipelines and machine parts made of copper
- Effective protection against formation of foam in practical applications
- Very good protection of the workpiece after treatment





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SPECIFICATIONS AND TYPICAL PARAMETERS

Concentrate

Feature	Test conditions / unit		Penta-Cool WS 250	Method acc. to
Colour			water-clear, light yellow	visual
Storage temperature		°C	from -10 up to +50	
Density	at 20°C	kg / m ³	1117	DIN EN ISO 12185
Viscosity	at 20°C	mm ² /s	20	DIN EN ISO 3104
Cloud point		°C	< -20	
Mineral oil content		%	0	
Refractive index		% per °Brix	1.85	

Emulsion with DIN water

Operating concentration	grinding of steel	> 3.0%	
	grinding of grey cast iron	> 4.0%	
pH-value in DIN 20 water	3% emulsion	8.9	DIN 51369
	4% emulsion	9.1	
Corrosion protection	3.5% emulsion	0/0	DIN 51360-1

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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 90 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.