



WATER MISCIBLE COOLANTS

ADDINOL PENTA-COOL WM 441

PRODUCT DESCRIPTION

ADDINOL Penta-Cool WM 440 is a semi-synthetic cooling concentrate for universal application at all cutting processes.

APPLICATION

- Suited for processing:
 - iron and steel
 - aluminium
 - cast alloys
- NOT suited for processing magnesium alloys.

PLEASE NOTE

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

TYPE

- Semi-synthetic
- Mineral oil content approx. 35%

DELIVERY

Delivery preferable in drums and 20L cans.

OPERATION CONCENTRATION

Depending on application:

- > 5% for automatic and metal cutting processes
- > 6% for sawing processes

SHELF LIFE AND TRANSPORT OF CONCENTRATE

Storable at room temperature in closed original package up to 12 months after date of production. Frost-protected transport!

CHARACTERISTICS

- FAD (formaldehyde deposit) free
- Outstanding corrosion protection
- Fine-disperse emulsion with excellent wetting behaviour

ADVANTAGES AND BENEFITS

- No health hazard
- Temporary storage of workpieces possible
- Superior cooling and lubricating effect





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SPECIFICATIONS AND TYPICAL PARAMETERS

Concentrate

Feature	Test condition / unit		Penta-Cool WM 441	Method acc. to
Appearance, colour			clear, yellow liquid	visual
Storage temperature		°C	from +5 up to +40	
Density	at 15°C	kg / m ³	976	DIN EN ISO 12185
Viscosity	at 20°C	mm ² /s	116	DIN EN ISO 3104
Mineral oil content		%	~ 35	
Refractive index		% per °Brix	1.2	

Emulsion with water

Operating concentration	universal application	> 5%	
pH-value in DIN 20 water	5% emulsion	9.3	DIN 51369
Corrosion protection	5% emulsion	0/0	DIN 51360-2
Stability in hard water	Mixing water	between 5°dH and 30° dH	
	in operation	stable up to 80°dH	

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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.

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