

r.rhenus R-FLEX

Two-component coolant

r.rhenus R-FLEX is a two-component water-miscible metal working fluid based on synthetic ester. A very flexible product which can individually be adjusted to practically all machining operations.

Application

The two components of **r.rhenus R-FLEX lub** and **r.rhenus R-FLEX em** can optimally be adjusted to the different requirements of lubricating effect and cutting performances of any application. The product can be used for any application like grinding up to difficult cutting operations of most different steel qualities, aluminium alloys, cast iron and non-ferrous materials.

Properties

- extraordinary low tendency of foam
- excellent rinsing effect
- optimum flexibly adjusted cutting performance
- resistant to micro-organisms
- high stability, good sump life
- environmentally friendly, water hazardous class 1
- good skin tolerance, pleasant smell
- free of secondary amines

Technical Data

r.rhenus R-FLEX lub		R-FLEX em / R-FLEX lub 2 % / 2%	
Viscosity at 40°C (mm ² /s)	Content of ester oil %	pH value	Corrosion protection (DIN 51360/2)
approx. 46	approx. 88	9,4	grade 0

Remarks

Prepare base operating emulsion at 2 % of **r.rhenus R-FLEX em** emulsion. According to required lubricating effect add 2 – 6 % of **r.rhenus R-FLEX lub** to the base emulsion. Dosing is best done by means of mixing equipment.

	R-FLEX em	R-FLEX lub
Recommended mixing ratio:		
Grinding of steel, cast or aluminium:	2 %	+ 2 %
Machining of steel, cast and non-ferrous metals:	2 %	+ 2 - 4 %
Machining of high tensile steel alloys:	2 %	+ 4 - 6 %
Machining of aluminium alloys:	2 %	+ 4 - 6 %

The concentration of the operating emulsion can be determined by means of a pocket refractometer. The Brix value multiplied by the refractometer value equals the total concentration in %. The content of **r.rhenus R-FLEX em** is determined by Profluid test sticks. The entire concentration less the concentration of **r.rhenus R-FLEX em** equals the content of **r.rhenus R-FLEX lub**. (Please refer to instructions for use of Test-Kit)

Refractometer factor

1,1 (to determine the **r.rhenus R-FLEX total** concentration)

Rhenus coolants are free from chlororganic substances, nitrite and secondary amines. They contain natural raw materials. Therefore, different shades of colour and appearance are possible, however, quality and function of the products are not affected at all.

Subject to modification of the technical data. Please refer to the material safety data sheet for additional information or contact our application engineers.

Edition

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