



Technical Data sheet

ILS VANGUARD BI

General purpose soluble metalworking fluid

Description

ILS VANGUARD BI is a general purpose soluble metalworking fluid which is chlorine and boron-free. It contains a unique additive package that provides good lubrication properties and performs well in a wide water range.

ILS VANGUARD BI can be used in single sump machines as well large systems.

Typical Applications

ILS VANGUARD BI is a versatile product recommended for general machining on low-medium alloy steel and aluminium alloys.

	Cast Iron	Low-medium alloyed steel	High alloyed - stainless steel	Aluminium alloys	Magnesium alloys	Yellow metals
Grinding						
Milling, Turning (general ,machining)	✓	✓ ✓	✓	✓ ✓		✓
Drilling	✓	✓ ✓	✓	✓ ✓		✓
Reaming, Tapping	✓	✓ ✓	✓	✓		✓
Broaching				✓		✓

Advantages

- Boron free for environmental compliance and improved residue characteristics
- Chlorine and nitrite free to fulfill your local legislation, waste treatment and environmental requirements
- Versatile product suitable for wide range of materials and operations
- Low foam in recommended water conditions

Typical Characteristics

Name	Method	Units	ILS VANGUARD BI
Concentrate	-	-	-
Appearance	Visual	-	Amber
Mineral oil content	Calculated	Wt%	> 60
Emulsion	-	-	-
Appearance	Visual	-	Milky
pH (5%)	DIN 51 361 / ASTM E70-97	-	9.5
Refractometer Factor	-	-	1.0

Concentration = Refractometer (Brix) reading x Refractometer Factor

Note : Data is typical and does not constitute a specification

Typical Physical Characteristics

	Boron	Formaldehyde releasing agent	EP-Ester	Amines	Chlorine
Additives		✓		✓	

Recommended Concentrations

General Machining	4 – 7 %
Drilling	5 – 7 %
Reaming & Tapping	7 – 10 %

Water range 50 – 400 ppm CaCO

Storage

To avoid product deterioration always keep the container/drum tightly sealed. Store the product in a cool, dry place away from direct sunlight. Prevent exposure to frost and avoid water ingress. For optimum product stability, it is preferable to store the product indoors between 5°C and 45 °C / 41°F and 113°F. For more details, please refer the product safety data sheet.

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