

SHELL METALINA® D 400

Water miscible metalworking fluid

SHELL METALINA® D 400 is a full synthetic, high quality coolant recommended for general purpose grinding and light duty machining operations on ferrous metals.

Performance Features and Benefits

- High stability - consistent product quality and performance maintained throughout its life
- Settles chips quickly - preventing grinding wheel build-up and maintaining clean working environment
- Full rejection of tramp oil - better working conditions, provides cleaner components, reduced degreasing and disposal costs
- Low foaming ensuring continuous grinding performance
- Transparent solution - excellent visibility of the work piece
- Environmental compliance - chlorine, phenol, secondary amine and nitrite free

Main Applications

SHELL METALINA® D 400 has been developed for surface, cylindrical, double disk and centerless grinding.

SHELL METALINA® D 400 is also recommended for turning, milling, boring and light drilling operations on cast-iron and low carbon steels.

Advice on applications not covered in this handbook may be obtained from your Shell representative.

Recommended Concentrations

The concentration varies depending on the type of machining operation, the water hardness and the required inter-operational corrosion protection. The recommended concentration for use in low water hardness is:

- Grinding : 3 – 6 %
- General machining : 4 – 8 %

Storage Requirements

The product should be stored inside (5-40°C) for no more than one year. Freezing should be avoided.

Handling and Safety Information

Please note that mixed coolants work over long periods of time, therefore chemical contamination (hydraulic oils, greases, metal solutions, paints, rust inhibitors, etc.) or bacterial contamination (from dirty hands, work pieces, industrial grade water, sundry waste, etc.) can often occur. Contamination with the above materials should be minimized/eliminated. Regular monitoring of the in-use product is recommended to maintain optimum product condition and for determination of its useful working life.

For information on the safe handling, storage, or use of this product, refer to its Material Safety Data Sheet at <http://www.epc.shell.com/>. If you are a Shell Distributor, please call 1+800-332-6457 for all of your service needs. All other customers please call 1+800-237-8645 for all of your service needs.

Protect the Environment

Do not discharge into drains, soil, or water.

Typical Physical Characteristics

	Unit	Method	SHELL METALINA® D 400
Mineral Oil content	%		0
Kinematic Viscosity @ 20 °C	cSt	ASTM D 445	8.5
Density @ 20 °C	kg/L	ASTM D 1298	1.093
pH of the emulsion at 3%		DIN 51369	9.5
Min Anti-Cor. Protection Limit (0-0)	%	DIN 51360/2	4
Refractometer Factor			2.15

These characteristics are typical of current production. While future production will conform to Shell specifications, variation in these characteristics may occur.