

Hi-Tech COOLCUT SL 40

Micro Emulsion Stable Soluble Cutting Oil

Now increase the productivity of machine tools with Soluble Cutting Fluids!

Hi-Tech **COOLCUT SL 40** is a premium grade, water soluble cutting oil which is designed to provide excellent machining performance in tough operating conditions. This cutting and grinding lubricant is basically the microemulsion of water with mineral oil. It provides excellent cooling and lubrication properties of a soluble oil. The fluid aims to deliver excellent tool life and quality surface finish, which can help to reduce tool re-grinding and component rejects. It helps to improve noticeable productivity and reduces machine downtime.



- It lubricates the cutting process at low cutting speeds also.
- Assured maximized lubrication and cooling between cutting edge tool and working surface.
- It provides excellent cooling at high cutting speeds
- It helps in flushing the chips away from the cutting zone
- Excellent rust protection to Ferrous and non-ferrous metals.
- Effective corrosion protection with mild hard water also.
- Constructive foam control under soft water condition.
- Possesses exceptional resistance to bacteria degradation.
- Offers low foaming tendency solution.
- Properties like high oiliness, low frictional and good cooling improve the life of the tools.
- Emulsion stability of Soluble Cutting Fluid is unsurpassed.
- Powerful emulsion stability in hard water also.

Technical Properties

Characteristics	Test Methods	Unit	Specifications
Concentrate Parameters:			
Appearance	Visual	-	Amber Fluid
Specific Gravity @ 27°C	CTM*	-	0.89
Mineral Oil Contents	-	%	80
Solution Parameters:			
Appearance	Visual	-	Milky
Cast Iron Corrossion Test	IP 287	-	Pass
Foam Depression Test	IP 312	-	Nil in 45 Secs
pH of 5% Solution	CTM*	-	9.5
Refractometer Factor	CTM*	-	1.0

CTM* = Corporate Method Test



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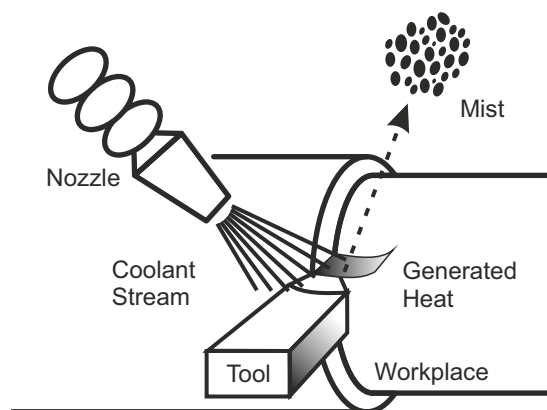
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Wide Range of Applications

From boring, milling and tapping on a range of alloy and carbon steels to drilling, reaming and grinding on low carbon and alloy steels and nonferrous metals, **COOLCUT SL 40** can be used equally in individual machine tools or in centralized systems.

Hi-Tech Series of Water Soluble Cutting Coolants

Fortified with various additives such as coupling agents, stabilizing agents and corrosion inhibitors. The products can be used for all types of general machining of ferrous and non ferrous metals where high degree of oiliness is required for excellent residual lubrication.



High Performance Benefits

- **Excellent rust and corrosion protection:** Provides long term protection on tools, components and machines.
- **Eco-Friendly:** It does not contain ozone depleting substances, free from coloring dyes, boron additives, silicone oil de-foamers, sodium nitrite, triazine biocides, sulphurised additives, phenolic couplers, nonyl phenol and np ethoxylates.
- **Chlorine-free:** The oil is formulated without chlorine that helps to reduce disposal costs.
- **Enhances performance:** The cutting oil helps to minimize tooling changes and re-grinds while maintaining excellent surface finish.
- It provides better surface finish, It reduces machine down time and also reduces thermal deformation of the piece being treated.
- Highly economical due to reduced labor cost.

How to Achieve Best Results ?

This unique fluid is designed to offer long service life with low maintenance requirements. Below tips should taken into consideration.

- The emulsion strength should be controlled very carefully.
- Use water emulsion with the addition of Hi-Tech COOLCUT SL 40 by 2% to 10% as per the requirement of the job.
- While making the emulsion, always add oil to water slowly while mixing well.
- Prevent contamination. Never add water to oil.
- Grinding dirt, chips, and any other contaminants should be removed quickly.

Extra Care & Maintenance Advice

Few tips and advices for extra care

- Proper storage and proper mixing.
- Checking the concentration of soluble oil emulsions (using refractometers)
- Checking pH (using a pH meter)
- Filtering the particulates by centrifuging
- Bacteria control (Control Contamination of foreign particles)
- Tramp oil control (hydraulic oil leaking into the cutting fluid system)
- For an effective cutting fluid performance, in some cases, the fluid may require to be changed completely.