MAK FORM SM

High quality forming oil with advanced additive formula for Steel

MAK Form SM has been specially designed for forging application of stainless steel. It is blended from highly refined, high viscosity index base stock with lubricity and inactive type extreme pressure additive. Surface finish and die life depend on the lubrication at the die and work piece interface. The chosen lubricity additive ensures reduction of friction at the contact point. The special additive chemistry helps providing low residue, excellent resistance to oxidation and extended operating life. The formulation is based on non-active chemistry.

Applications:

MAK Form SM is a neat forming oil for stainless steel and high nickel alloys. It forms an extremely strong lubricating film. It is suitable for cold and hot forging of stainless steel like large and small fasteners (bolts, nuts, screws etc.). This medium viscosity oil is suitable for metal tube drawing, blanking and stamping of steel, stainless steel and nickel alloys. It provides proper lubrication in high speed forming application.

Recommended Use	Cast Iron	Alloy Steel	Carbon Steel	Al. Alloy	Yellow Metals
Forging	--	√√	√√	--	--
Tube Drawing	--	√√	√√	--	--
Stamping, Blanking, fine Blanking	--	√	√	--	--

√√ Main applications, √ Check with supplier

Performance/ Benefits:

Excellent EP property – inactive sulphur provides excellent ability to withstand higher loads and shock loads encountered in the drawing application. It provides protection to die and wheel and also ensures superior surface finish to the job.

Good Surface Finish – superior quality oiliness and wear protection additives along with the ability to block environment moisture provide very good surface finish.

Outstanding Thermal and Oxidation Resistance – prevents the formation of sludge and residue. Enhances the life and reduces the cost of operation.

Excellent Lubricity – contains fatty oil to provide excellent lubricity and to reduce friction. It improves the surface finish and extends die life.

Low Deposit Formation – leaves little or no deposit on the work piece and the die. Ensures dimensional geometry.

Specification:

- Proprietary Grade

Typical Physico-Chemical Data: MAK Form SM

Characteristics	Method	Value
Appearance	Visual	Clear
Colour	Visual	Brown
Density, g/cc @15^{O}C	ASTM D1298	0.985
Copper Corrosion, 100^{O}C, 3 hrs.	ASTM D130	2c
Pour Point, ^{O}C,	ASTM D97	-6
Flash Point, COC, ^{O}C	ASTM D92	250
Kinematic Viscosity @40^{O}C, cSt	ASTM D445	130
Weld Load, kg	ASTM D2783	800

Additive:

Ester	Fatty Oil	Zinc	Sulphur	EP	Phosphorus
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Storage & Handling:

The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing. Shelf life is 3 yrs. under protected storage conditions.

Health & Safety:

It is unlikely to be hazardous when properly used in recommended applications. Contamination of the oil from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.

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