

STRUB Innocut - Series

The liquid high-tech tools for MMKS lubrication



The best way to achieve optimal results when machining with MMKS Technology:

- ✓ Through usage of the right tools
- ✓ Through adjusting of your machine to the new technology
- ✓ Through usage of the right spray system
- ✓ Through usage of the right lubricant

Advantages of MMKS for your Business:

- ✓ massive lowering of your coolant costs
- ✓ massive lowering of tool costs
- ✓ drastic higher finishing speeds
- ✓ much better surface finish
- ✓ No disposal costs
- ✓ technology advantage against opposition
- ✓ clean workstations
- ✓ dry shavings
- ✓ savings when cleaning of finished parts
- ✓ dry, rust and spot free work pieces
- ✓ environmentally friendly
- ✓ better image
- ✓ human friendly
- ✓ higher work motivation

STRUB Innocut A 1000 Article number 30772	STRUB Innocut L 5000 Article number 30396
MMKS is formulated on special synthesized raw materials, which are based on renewable natural resources. Especially suited for NF metals, which have to be heat treated. Evaporating.	MMKS is formulated on special synthesized raw materials on renewable natural resources. Recommended for steel, aluminum, cooper alloys, zinc coated sheets. Direct heat treatment without washing is possible. Evaporating.

STRUB Innocut E 84 Article number 30944	STRUB Innocut E 92 Article number 30062	STRUB Innocut EM 22 Art. Nr. 30851 STRUB Innocut PE 35 Art. Nr. 31820 STRUB Innocut EM 46 Art. Nr. 30479 STRUB Innocut P 68 Art. Nr. 32464 STRUB Innocut EM 2100 Art. Nr. 31023
MMKS is formulated on special synthesized raw materials on renewable natural resources. Especially suited for steel and high tensile steel. Heat Treatment without cleaning afterwards is not always possible.	MMKS is a synthetic bio-based lubricant specially designed for platinum, gold, silver.	MMKS formulated with synergistic additive combinations. For a wide range of heavy duty machining operations. Especially recommended for steel and high tensile steel, aluminum and yellow metals. Heat treatment without cleaning is limited. Very good demulsifying properties in case of contact with emulsions. (mineral oil based!!)

The information contained in this technical data sheet are based on the general knowledge and application possibilities. Strub + Co. AG is not liable for damage resulting from improper use of the products. The industry-standard measurement and production tolerances apply to the specified characteristics. Generally, no legally binding can be derived from this data. Our products are constantly further developed. Therefore Strub + Co. AG reserves the right to change all technical data in this data sheet at any time and without prior notice.

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Application Areas	Innocut A 1000	Innocut L 5000	Innocut E 84	Innocut E 92	Innocut EM 2100	Innocut EM 46	Innocut EM 22	Innocut PE 35	Innocut* PE 68
fine to medium cutting/machining	+++	+++	++	+++	+++	++	++	+++	+++
heavy duty machining	+	++	+++	++	++	+++	+++	++	++
exceptional heavy duty machining	-	+	+++	++	++	+++	+++	+	-
High speed cutting	-	+	++	++	+	+++	+++	-	-
Aluminium, Magnesium, Titan	+++	+++	++	++	+++	++	++	+++	-
NF Metals	+++	+++	+	+++	+++	+	+	++	++
Steel	+	++	+++	+	++	+++	+++	+++	+++
Cast Iron	+	+	++	+	+	++	++	+	+
Precious metals, Platinum, Titan, silver	-	-	+	+++	+	+	+	+	-

Technical Data		Innocut A 1000	Innocut L 5000	Innocut E 84	Innocut E 92	Innocut EM 2100	Innocut EM 46	Innocut EM 22	Innocut PE 35	Innocut* PE 68
Appearance		clear	clear	clear	clear blue	clear	clear	clear	clear	clear
Density	g/cm ³	0.840	0.764	0.920	0.870	0.860	0.875	0.860	0.850	1.06
Viscosity at (40°C)	mm ² /s	22	2,5	~ 43	~ 10	16	~ 45	~ 23	~ 3.5	*
Viscosity at (100°C)	mm ² /s	3	~ 1	~ 8	~ 3	3.8	~ 7	~ 4.1	~ 1	*
Flash Point	°C	160	62	> 250	~ 200	196	200	190	> 62	*

* It will be diluted with 10% - 30% water, depending on alloy and machining.

Transport

ADR/SDR: No dangerous goods

Disposal

LVA VeVA / EAK: 12 01 07

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