

Data sheet (Translation of the original)

30809002 (05/18)

MQL oil material compatibility test

The following list contains lubricants of different manufacturers which have been specifically formulated for minimal quantity lubrication. This offers users a choice.

- The details listed in the 'Application' column show which processes/materials the oil has been used for (where known).
- bielomatik cannot assure the optimum suitability of the oils for the different processes/materials (e.g. in terms of lubricating effect). As a matter of principle, advice should be obtained from the oil manufacturer on the most suitable oil to be used for a particular process or relevant tests should be carried out.
- The listed oils were tested in relation to applicability and volumes for bielomatik system components. No negative effects on the components were detected during the test phase. Furthermore, no unwanted abnormalities have been identified to date regarding compatibility with bielomatik system components.

It is impossible to predict the long-term effect of the oils on the system components!

No.	Manufacturer's name	Designation	Viscosity mm ² /s [40C°]	1- channel system	2- channel system	Type	Application
1	Bechem	Berucut 20 ZF	40		X	Fatty alcohol with additives	Aluminium, aluminium alloys, steel
2	Blaser Swisslube	Vascomill MQL FA1	20	X	X	Fatty alcohol	Aluminium, aluminium alloys, non-ferrous metals
3	Blaser Swisslube	Vascomill MQL FA2	32	X	X	Fatty alcohol	Aluminium alloys, vermicular graphite cast iron, steel, tempering steel, steel alloy
4	Blaser Swisslube	Vascomill MMS HD SE1			X	Synthetic ester	Aluminium
5	Blaser Swisslube	Vascomill MQL SE1	20	X	X	Synthetic ester	Aluminium, aluminium alloys, non-ferrous metals, ductile iron, steel
6	Castrol	Hyspray E2000	27	X	X	Synthetic ester	Steel alloy, Aluminium
7	Castrol	Hyspray A1536	28		X	Fatty alcohol	Aluminium, non-ferrous metal, cast iron, steel
8	Castrol	Carecut ES 1	27	X	X	Synthetic ester	Steel alloy, Aluminium
9	Falcon Industrial Inc.	Durakut MQL 50	20		X	Fatty alcohol	Aluminium, steel, ductile iron
10	Fuchs	ECOCUT Micro Plus 20	27	X	X	Fatty alcohol	Aluminium, cast iron, tool steel
11	Fuchs	ECOCUT Micro Plus 82	20	X	X	Fatty alcohol	Aluminium, ductile iron
12	Fuchs	Planto PLUS Micro 830 S-CS	31		X	Synthetic ester	Steel, ductile iron
13	Houghton *Tested as Shell product	Garia SL 201	32		X	Fatty acid ester	Aluminium, cast iron, tool steel, titanium steel
14	Houghton *Tested as Shell product	Garia SL 680	70		X	Synthetic ester	Heavy duty aluminium, steel
15	Houghton	Garia SL201E	32			Fatty acid ester	Ferrous and non-ferrous materials
16	Houghton Germany GmbH	Macron SL 501	27		X	Fatty alcohol	Aluminium, aluminium alloys

No.	Manufacturer's name	Designation	Viscosity mm ² /s [40C°]	1- channel system	2- channel system	Type	Application
17	Houghton Germany GmbH	Macron SL 502	20	X		Fatty alcohol	Aluminium, aluminium alloys
18	Iorgalube	Iorgalube MQL ESP 30	28-32	X	X	Synthetic ester	Steel
19	Oemeta	Microtol EC 32	32		X	Synthetic ester	Aluminium, aluminium alloys, steel, stainless steel, grey cast iron, non-ferrous metal, titanium
20	Oemeta	Microtol FA 30/E	32		X	Fatty alcohol	All metallic materials
21	Petrofer	Isocut 82	35		X	Natural fatty acid ester	Steel, aluminium, magnesium, Titanium, non-ferrous metal
22	PNZ - Produkte GmbH	FD1 - 30	30 [at 20°C]	X		Vegetable fatty acids	
23	Quaker Chemical B.V.	Quakercut MQL 30 (Microcut 30)	36		X	Vegetable oil	Steel, ductile iron
24	Quaker Chemical B.V.	Quakercut MQL 45EAL	45		X	Synthetic ester	Aluminium, aluminium alloys, non-ferrous metals, ductile iron, steel
25	Quaker Chemical B.V.	Quakercut MQL 12XP	10		X	Vegetable oil	aluminium alloys, copper alloys, cast iron, stainless steel, steel, titanium
26	Quaker Chemical B.V.	Quakercut MQL 020	21		X	Fatty alcohol	aluminium alloys, copper alloys, cast iron, stainless steel, steel, titanium
27	Quaker Chemical B.V.	Quakercut MQL 020C	21		X	Fatty alcohol	aluminium alloys, copper alloys, cast iron, stainless steel, steel, titanium