

elma-clean - cleaners for water-based industrial cleaning of parts

COMPATIBILITY with the MATERIALS of SURFACES and APPLICATION

March 2007

SURFACE	contamination to be removed substrate	light metal	magnesium	aluminum	zinc	brass	non ferrous metal	tin	nickel	precip metal	stainless steel	cast iron	iron metal	hard metal	mineral glasses	infrared optics	rubber, elastomer	ceramic	silicon wafer	organic glass	precision optics	product tech data sheet	general attributes MSDS	application	chemical properties	
GLASS & OPTICS	polishing & grinding residues, storage dirt ->ready for inspection organic glass	-	-	-	-	+	+	-	+	o	+	+	+	-	+	-	o	+	-	++	-	EC 330 liquid	strongly alkaline KOH-based emulsifying	2 - 5 vol% 50 - 80 °C 3 min.	silicate- & phosphatefree pH (2-4 vol%): 13 - 13.5	
	lime soaps, polishing & grinding residues, markings, labels, fingerprints, dust	-	o	-	-	-	+	-	+	+	++	+	+	-	+	o	++	o	o	++	o	EC 275 d&s liquid	strongly alkaline KOH-based suitable for splashing	1 - 2 vol% 50 - 80 °C 3 min.	silicatefree pH (1-2 vol%): ~ 13	
	fingerprints, storage dirt, polishing residues -> ready for coating	-	-	-	-	+	+	-	+	+	+	+	+	-	++	-	o	+	-	+	-	EC 335 liquid	strongly alkaline NaOH-based emulsifying	2 - 5 vol% 50 - 80 °C 3 min.	silicate- & phosphatefree pH (1-4 vol%): 12.5 - 13	
	polymer, synth. resin, protective lacquer, adhesive -> mould precleaning	-	-	-	-	-	-	-	+	+	o	o	o	o	-	++	-	o	o	-	++	-	EC 305 liquid	strongly alkaline KOH-based resin uptake with 25% soln. : 7 g/l	10 - 50 vol% 50 - 80 °C 15 min.	silicatefree with phosphate pH (10-50 vol%): 13 - 14
	grease, resin, grinding and polishing residues, slurry cleaning of Si-wafers	-	o	-	+	++	+	-	++	+	++	++	++	++	-	+	o	++	o	++	+	o	EC 110 liquid	strongly alkaline emulsifying foaming	3 - 5 vol% 50 - 90 °C 5 min.	silicate- & phosphatefree pH (3-5Vol%): ~ 13
	dust, fingerprints, polishing residues, storage dirt -> ready for coating	-	-	-	-	o	o	-	+	o	+	+	+	+	-	++	+	+	+	+	++	+	EC 300 liquid 2)	alkaline emulsifying KOH-based	1 - 5 vol% 40 - 70 °C 3 min.	silicatefree, w. phos. Al, Cu, Ni, Co: < 0.2 & Cr, Fe, Zn: < 3 ppm pH(0.5-2%): 11.5 - 12.5
	grease, oil, lime soap, markings, labels, fingerprints, dust	o	o	o	o	+	+	+	+	+	++	++	+	+	+	++	+	++	++	+	++	+	EC 270 d&s liquid	alkaline foam inhibited KOH-based suitable for splashing	0.5 - 1 Vol% 50 - 70 °C	silicatefree with phosphate pH (0.5-1Vol%): 9 - 10
	grinding and polishing residues, lime soaps	-	-	-	-	o	o	+	+	++	-	-	-	-	+	o	++	+	+	+	+	+	EC 290 tf liquid	surfactantfree alkaline suitable for spray cleaning	1 - 2 Vol% 25 - 70 °C	silicatefree with phosphate pH (1-2Vol%): 9 - 9.5
	dust, fingerprints, resin & lacquer residues	-	-	-	+	+	+	-	+	+	+	+	+	+	-	++	o	++	+	-	+	+	EC 226 liquid	mildly alkaline NaOH-based emulsifying	3 - 5 vol% 40 - 70 °C 5 min.	silicate- & phosphatefree pH (3-5 vol%): 11 - 11.5
	dust, fingerprints, grinding & polishing residues framed optics	-	-	-	-	++	++	+	+	++	+	+	+	+	-	++	o	+	o	o	o	+	EC 230 liquid	ammoniated emulsifying	3 - 5 vol% 20 - 50 °C 5 min.	silicate- & phosphate-free, ammoniated pH (3-5 vol%): 10 - 10.5
WAFER	dust, fingerprints, light grease & oil, flux framed optics, optical assemblies	+	o	+	+	+	+	+	+	+	+	+	+	-	++	+	++	+	+	++	+	EC 225sonic liquid	mildly alkaline emulsifying	2 - 10 vol% 50 - 80 °C 5 min.	silicate- & phosphatefree pH (2-10 vol%): 9 - 10	
	dust, fingerprints, light grease & oil, flux framed optics, optical assemblies	+	o	+	+	+	+	+	+	+	+	+	+	-	++	+	++	+	+	++	+	EC 225spray liquid	mildly alkaline emulsifying suitable for splashing	1 - 3 vol% 50 - 70 °C 3 min.	silicate- & phosphatefree pH (1-3 vol%): 9 - 9.5	
	residues of native resin, waxes and adhesives -> ready for coating precision optics	+	-	+	+	+	+	+	+	+	+	+	+	-	++	+	+	+	+	++	+	EC 310 liquid	neutral emulsifying	2 - 5 vol% 50 - 80 °C 5 min.	silicate- & phosphatefree pH (2-5 vol%): 7.5 - 8	
	lime soaps, aqueous coolants, grease, oil, dust, fingerprints semiaqueous cleaning	+	+	++	+	+	+	o	++	++	+	+	+	+	++	++	+	+	++	+	+	+	EC 260 d&s liquid	neutral demulsifying suitable for splashing	1 - 2 vol% 30 - 75 °C	silicatefree with phosphate pH (1-2vol%): 7 - 8
SPECIALS	lime, rust, oxide; dust, fingerprints, mineral grease & oil acid-resistant glas	+	-	+	-	+	+	o	+	+	+	+1)	-	-	-	+	+	+	+	+	+	EC 115C liquid	acidic emulsifying	1 - 3 vol% 30 - 80 °C 2 min.	silicate- & phosphatefree pH (1-3 vol%): 2.5 - 3	
	lime soaps/scales, aqueous coolants, grease, oil, dust, fingerprints	+	o	++	+	+	+	o	++	++	+	+	+1)	+1)	+1)	+1)	++	o	+	+	+	+	EC 250 d&s liquid	acidic demulsifying suitable for splashing	0.5 - 1 vol% 50 - 75 °C	silicatefree with phosphate pH (~ 1 vol%): 4.5
SPECIALS	wetting agent suitable at high bath temperatures	-	-	-	-	+	+	+	+	o	+	o	o	o	++	o	++	+	-	+	o	elma-netz HT1 liquid	mildly alkaline water-solubility limited	ca. 0.1 vol% 30 - 95 °C >= 2 min	silicate&phosphate- free, use soft water pH (0.1 vol%): 8 - 9	
	residuefree evaporating wetting agent	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	elma-netz HT2 liquid	neutral max. 1.2 vol% watersoluble	0.3 - 0.5 vol% 40 - 65 °C >= 2 min	saltfree, set up with deionized water pH : ~ 7	
	foam-inhibiting additive to EC-products	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	elma-non-foam 1 liquid	neutral additive enabling spray cleaning	w. ratio 1:10 to cleaner >= 50 °C	salt-, silicone- & fluorinefree pH : ~ 7	

1) : recommended for parts sensitive to rusting; subsequent alkaline step or step with anti corrosion additive elma-KS. 2): suitable for spray cleaning using additive nonfoam 1.

- ++ well suitable
- + suitable / compatible with material.
- o check for compatibility
- not compatible with material