

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

COMPATIBILITY with the MATERIALS of SURFACES and APPLICATION

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SURFACE	contamination to be removed	light magnesium zinc													non ferrous nickel stainless steel cast iron hard metal													glass & quartz													product tech data sheet	general attributes MSDS	application	chemical properties
		brass													aluminum													ceramics																
METAL	grease, oil, carbon, scale, rust, grinding & polishing residues, flux, silicon oils & greases	-	++	-	-	+	++	-	++	+	++	++	++	++	o	o	o	+	o	o	-	-	EC 112 + EC 212 liquid	strongly alkaline, demulsifying, 2-comp.-system f. membran filtr.	3 - 5 vol% + 0.3 - 0.4vol% 50 - 90 °C 5 min.	silicafree, with phosphate, pH (3-5Vol%): 13 - 14																		
	grease, oil, carbon, scale, resin, rust, flux, grinding & polishing residues, slurry cleaning of Si-wafers	-	o	-	+	++	+	-	++	+	++	++	++	++	-	o	o	+	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																		
	grease, oil, carbon, scale, soot, grinding & polishing residues	-	-	-	-	o	o	-	+	++	++	+	+	+	-	o	o	+	-	-	-	-	EC 225 R liquid	alkaline	3 - 6 vol% 50 - 80 °C 5 min.	with silicate & phosphate pH (3-6Vol%): 11.5 - 12																		
	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	silicafree with phosphate pH (0.5-1Vol%): 9 - 10																		
	grease, oil, carbon, scale, resin, grinding & polishing residues	++	+	++	++	o	o	-	+	+	+	+	+	+	-	-	o	+	-	-	-	-	EC 120 powder 2)	alkaline emulsifying	1 - 4 mass% 50 - 80 °C 5 min.	with silicate & phosphate pH (1-4 mass%): 12 - 12.5																		
	flux, polishing residues, oxide deposits on gold & tin alloys	-	-	-	o	+	+	++	+	++	+	+	+	+	+	+	+	+	+	+	-	+	EC 228 liquid	mildly alkaline emulsifying	5 - 10 vol% 30 - 80 °C 5 min.	silicate- & phosphatefree pH (5-10 vol%): 10 - 11																		
	grease, oil, grinding & polishing residues	+	o	++	+	-	+	o	+	+	+	+	+	+	-	+	-	+	+	+	-	o	EC 221 liquid 2)	mildly alkaline	1 - 10 vol% 50 - 80 °C 5 min.	silicate- & phosphatefree pH (1-10 vol%): 9 - 9.5																		
	grease, oil, grinding & polishing residues	+	o	+	o	+	+	o	+	o	+	++	++	++	-	o	o	o	o	o	-	o	EC 105 liquid	mildly alkaline emulsifying	3 - 5 vol% 50 - 90 °C 5 min.	silicate- & phosphatefree, pH (3-5 vol%): 8.5 - 9 with corrosion inhibitor																		
	grease, oil, punching & sliding oil	++	+	++	+	+	+	+	+	+	+	+	+	+	-	+	+	+	+	+	o	o	EC 225 E/I liquid	mildly alkaline foam-inhibited	3 - 5 vol% 50 - 80 °C 5 min.	silicafree with phosphate pH (3-5 vol%): 8 - 8.5																		
	grease, oil, grinding & polishing residues	+	o	+	+	++	++	+	+	+	+	++	+	+	+	+	+	+	+	+	-	+	EC 210 liquid	neutral emulsifying	2 - 5 vol% 50 - 70 °C 5 min.	silicate- & phosphatefree, pH (2-5 vol%): 8 - 8.5 with corrosion inhibitor																		
	lime soaps, aqueous coolants, grease, oil, dust, fingerprints	+	+	++	+	+	+	o	++	++	+	+	+	+	+	++	++	+	+	+	+	+	EC 260 d&s liquid	neutral demulsifying suitable for splashing	1 - 2 vol% 30 - 75 °C	silicafree with phosphate pH (1-2vol%): 7 - 8																		
	grease, oil, grinding & polishing residues, lacquered surfaces	+	o	+	+	++	++	+	+	++	+	+	+	+	++	++	+	+	++	+	++	++	EC 85 liquid	neutral emulsifying	2 - 5 vol% 50 - 80 °C 5 min.	silicate- & phosphatefree pH (2-5 vol%): 7.5 - 8																		
	lime soaps/scales, aqueous coolants, grease, oil, dust, fingerprints	+	o	++	+	+	+	o	++	++	+	+	+	+	+	++	o	+	+	+	+	+	EC 250 d&s liquid	acidic demulsifying suitable for splashing	0.5 - 1 vol% 50 - 75 °C	silicafree with phosphate pH (~ 1 vol%): 4.5																		
	lime scale, oxides, mineral oil & grease, grinding & polishing residues	o	-	+	-	+	+	o	+	+	+	+	+	+	-	o	+	+	+	o	+	EC 145 liquid	mildly acidic emulsifying foaming	2 - 5 vol% 50 - 80 °C 2 min.	silicate- & phosphatefree pH (2-5 vol%): 1.5 - 2.5																			
	lime scale, rust, oxides, mineral oil & grease, base for pickling solution	-	-	-	-	+	+	-	++	++	++	+	+	+	+	o	-	+	o	o	o	o	EC 215 liquid 2) restricted	strongly acidic emulsifying	1 - 5 vol% 40 - 70 °C 2 min.	silicafree with phosphoric acid pH (1-5 vol%): 0.5 - 1.5																		
lime scale, rust, flux, metal oxides, mineral oil & grease	-	-	-	-	+	+	-	++	++	++	+	+	+	+	o	-	+	+	+	o	o	EC 280 d&s liquid	strongly acidic foam-inhibited suitable for splashing	0.5 - 2 vol% 40 - 70 °C	silicafree with phosphate pH (0.5-2Vol%): 1 - 2																			
SPECIAL PRODUCTS	anticorrosion additive for rinsing & cleaning baths	o	o	o	o	o	o	+	+	+	++	++	++	+	o	-	o	o	o	-	o	elma-KS liquid	neutral water-soluble oil- & siliconfree	0.05 - 0.1 vol% 30 - 90 °C >= 1 min	silicate- & phosphatefree pH (0.1vol%): 7.5 - 8																			
	wetting agent suitable at high bath temperatures	-	-	-	-	+	+	+	+	o	+	o	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																		
	pickling-inhibitor additive for mineral acids	-	-	-	-	+	+	o	+	o	+	++	++	++	-	o	-	o	o	o	o	-	elma-Beiz-zusatz S1 liquid	neutral stops acid attack on base metal	2 - 5 vol% 25 - 65 °C	saltfree pH : ~ 9																		

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