

Coating type	Passivation	Conforming to Directives		Not suitable for product group
		- EU 2000/53/EC (Used Car Directive)	- EU 2002/53/EC (RoHS)	
		- German Electrical and Electronic Equipment Act (ElektroG)		
		yes	no	
plating (galvanic)				
Fe/Zn...c B	thin layer transparent	x		
Fe/Zn...c C	thin layer yellow		x	
Fe/ZnNi	transparent	x		hardened clips
Fe/ZnFe	thick layer Cr III transparent	x		
Fe/ZnFe...sw vs	thick layer Cr III black + sealing (recommended)	x		products prone to bonding and bundling
Fe/ZnFe	black Cr VI		x	
mechanical				
Fe/Zn...M	thick layer Cr III	x		products with threads and fits
Fe/Zn...M gelb	thin layer yellow		x	
organic/inorganic				
Delta Seal	silver	x		products with threads and fits, products prone to bonding and bundling
Delta Seal/Deltatone	black	x		
Deltamagni 565	grey/green Cr VI-free	x		
Dacromet			x	
Geomet		x		

Note:

Suitability for coating is product and quantity-dependent and must be technically and commercially checked in each individual case. The coating types mentioned represent only a selection of the possibilities available.

Material standard	Germany (DE) DIN	France (FR) AFNOR NF	UK B.S.	Spain (ES) UNE
1.0402	C22	XC 25	070M20	F.112
1.0503	C45	XC 45	080M46	F.114
1.0715	11SMn30+C	-	230M07	F.2111
1.0718	11SMnPb30+C	S250Pb	-	F.2112
1.3505	100Cr6	100Cr6	25135	F.1310
1.4006	X12Cr13	Z10C13	410C21	F.3401
1.4028	X30Cr13	-	420S45	F.3403
1.4034	X46Cr13	Z44C14	-	F.3405
1.4057	X17CrNi16-2	Z15CN16-02	431S29	F.3427
1.4125	X105CrMo17	Z100CD17	-	-
1.4301	X5CrNi18-10	Z4CN19-10FF	304S17	F.3541
1.4305	X8CrNiS18-9	Z8CNF18-09	303S22	F.3508
1.4401	X5CrNiMo17-12-2	Z6CND17-11	316S17	F.3543
1.4571	X6CrNiMoTi17-12-2	Z6CNDT17-12	320S18	F.3535
1.7225	42CrMo4	42CrMo4	708M40	F.1252
2.0561	CuZn40Al1	-	-	-
2.1030	CuSn8	-	-	-

Material standard	Sweden (SE)	Italy (IT)	USA	Czech Rep. (CZ)	
	SS 14	UNI	SAE/AISI	CSN	Type
1.0402	1450	C21	M 1023	41 2024 (1984)	12024
1.0503	1650	C45	Aisi 1043	41 2050 (1976)	12050
1.0715	-	-	-	41 1109 (1974)	11109
1.0718	1914	CF9SMnPb28	12L13	-	-
1.3505	2258	100Cr6	Aisi 52100	41 4109 (1976)	14109
1.4006	2302	X10Cr13	Aisi 410	41 7021 (1980)	17021
1.4028	-	-	-	41 7023 (1976)	17023
1.4034	-	X40Cr14	-	-	-
1.4057	2321	X16CrNi16	Aisi 431	-	-
1.4125	-	-	Aisi 440C	-	-
1.4301	2332	X5CrNi1810	Aisi 304	41 7240 (1972)	17240
1.4305	2346	X10CrNiS1809	Aisi 303	-	-
1.4401	2347	X5CrNiMo1712	Aisi 316	41 7646 (1972)	17346
1.4571	2350	X6CrNiMoTi1712	316Ti	-	-
1.7225	2244	42CrMo4	Aisi 4140	41 5142 (1977)	15142
2.0561	-	-	-	-	-
2.1030	-	-	-	-	-

Equipment of manufacture/ sector	Products/Process
PRODUCTION LINE	Clevises according to DIN 71 752 G 4 x 8 to G 50 x 96 Clevises according to CETOP standard Clevises according to drawings
PRODUCTION LINE/ SPECIAL MACHINES	Folding spring bolts for clevises FKB 4 x 8 to FKB 20 x 40
PRODUCTION LINE	Angle joints according to DIN 71 802 Ball studs according to DIN 71 803 Housings according to DIN 71 805
AUTOMATIC LATHE	Single spindle INDEX, TRAUB , STOHM, TORNOS from \varnothing 4 x 15 long up to \varnothing 60 x 150 long Single-spindle – CNC Complex machining (opposed spindle; cross machining, driven tools) from \varnothing 4 to \varnothing 42 mm x 150 long Multi spindle PITTLER (L) 6 spindle up to \varnothing 63 8 spindle up to \varnothing 32 Length upon request
SECOND-OPERATION LATHE	For lathe work and punched parts RORSCHACH FA3 up to \varnothing 12 x 100 long WEILER, BOLEY up to \varnothing 30 x 100 long
COLD HEADING MACHINES	Bolts punched according to DIN 1434, 1435, 1436, 1444, \varnothing 6x15 up to \varnothing 10 x 100, \varnothing 8x20 up to \varnothing 14x55 material: 1.0214 and 1.4567 HILGELAND, KUHNE, PELTZER + EHLERS (single and double pressure)
RIVETING MACHINE	Automatic and half-automatic mounting of bolts and axes by riveting
HARDENING (EXTERN)	<ul style="list-style-type: none"> • by induction • Nitrocarburisation • Cementing
SURFACE	Conservation/oiling Coating (external): <ul style="list-style-type: none"> • phosphating • galvanic zinc coating bichromated / blue passivated • mechanic zinc coating bichromated / blue passivated • chemical nickel plating • electrical polishing • coating Delta magni

Equipment of manufacture/ sector	Products/Process
BLASTING UNIT	Surface blasting (descaling, cleaning) RÖSLER RDT 100
VIBRATORY GRINDING EQUIPMENT	Burring /chamfering of the edges /polishing /conservation RÖSLER , SPALECK, WALTHER-TROWAL including pre-selected cleaning stage with integrated water treatment and drying installation for the parts. Dimension of the parts: up to approx. ø 100 x 200 long
CLEANING DEVICES	Removing of the oil/ removing of the cuttings/ cleaning/ conservation STEIMEL HBR 7 DÜRR-ECOCLEAN, full automatic cleaning equipment with 5 chambers including integrated cleaning and distilling stage with heat recovery
METAL CUTTING AND PROCESSING MACHINES	Milling/ boring / friction / threading/ lathing / Marking/ knurling / pressing in / flat and round grinding
WELDING DEVICES	Methods: • protective gas • electrodes
MOUNTING/PACKING	• Mounting • Packing according to customers' requirements in cartons, boxes, even neutral packing. • packing/ packing into bags/ labelling/ counting Automatic packing machine for PE bags, width max. 240 mm Sealing welding machines High precision counting scales SARTORIUS and METTLER-TOLEDO
SPECIAL VERSIONS	to customer specifications