



RAW MATERIAL

MATERIAL DESIGNATION			ADVANTAGES / APPLICATIONS		
EUROPEAN	GERMAN	AMERICAN	Corrosion Protection	T° Max of utilisation	APPLICATION
CARBON STEEL					
EN 10270-1	DIN 17223-1	ASTM	L=Low M=Medium G=Good E=Excellent		
SM	B	A227	L	100°C	Springs with low static sollicitation
SH	C	A228	L	100°C	Springs with medium static sollicitation
DH	D	A228	L	100°C	Springs with high and dynamic static sollicitation
CLASS 2	CLASS 2	-	L	100°C	Springs with high static sollicitation, under oscillating stress
TEMPERED OIL STEEL					
EN 10270-2	DIN 17223-2	ASTM			
FDCrSi	FDCrSi	A401	L	200 °C	Application for static springs
TDCrSi	TDCrSi	A 1000-5 Grade A	L	200 °C	Application for springs with medium dynamic sollicitation (type of springs as clutch)
VDCrSi	VDCrSi	A 877	L	200 °C	Application for springs with severe dynamic sollicitation (Types springs for Valves)
STAINLESS STEEL					
EN 10270-3	DIN 17224	AISI			
1,4310 NS - 1,4310 HS	X10CrNi18-8	302 NS - 302 HS	M	250 °C - 300 °C	Normal corrosion protection- for all applications
1,4401	X4 CrNiMo 17-12-2	316 - 316 L	G	300 °C	Normal corrosion protection - food environment/medical etc.
1,4301	X5CrNi18-10	304 - 304 L	G	300 °C	Normal corrosion protection - food environment/medical etc.
1,4568	X7CrNiAl17-7	17.7 PH	M	350 °C	Corrosion protection slightly high with a good temperature resistance
1,4539	X1CrNiMoCu25-20-5	904 L	E	300 °C	Upgraded corrosion protection compare to 316L-304L

SPECIFIC ALLOY

EN 12166	NF A 51-108	ASTM B103			
CuBe2	CuBe	C17200	G	180 °C	Copper Beryllium is a grade with good characteristics for electrical conductance
EN 1652	DIN 17662	ASTM B103			
Cu Sn 6	Cu Sn 6	C 51900	G	100 °C	Phosphor bronze, good corrosion protection
Werkstoff	DIN 17224	UNS			
INCONEL X750 (2,4669)	NiCr15Fe7TiAl	N 07750	E	600 °C	Very good protection to cryogenic temperature. High temperature dynamic applications
316 Ti (1,4571)	X6 CrNiMoTi 17,12	316 Ti	G	400 ° C	Better corrosion protection at high temperature compare to stainless steel 316
NIMONIC 90 (2.4632)	NiCr20Co18Ti	N 07090	E	600 °C	Good corrosion protection and oxidation at high temperature