• COPPER WIRE

APPROXIMATIVE EQUIVALENCE					
EN DESIGNATION			DIN		ASTM DESIG.
Symbolic	Numeric	Standard	Designation	Standard	
Cu-ETP	CW004A	EN 13601	E-Cu58	DIN 17577	C11000

• BRASS WIRE

APPROXIMATIVE EQUIVALENCE					
EN DESIGNATION			DIN		ASTM DESIG.
Symbolic	Numeric	Standard	Designation	Standard	
CuZn15	CW502L	EN 12166	CuZn15	DIN 17660	C23000
CuZn30	CW505L	EN 12166	CuZn30	DIN 17660	C26000
CuZn37	CW508L	EN 12166	CuZn37	DIN 17660	C24000
CuZn39Pb3	CW614N	EN 12166	CuZn39Pb3	DIN 17660	-

• BRONZE WIRE

APPROXIMATIVE EQUIVALENCE					
EN DESIGNATION			DIN		ASTM DESIG.
Symbolic	Numeric	Standard	Designation	Standard	
CuSn6	CW452K	EN 12166	CuSn6	DIN 17682	C51900
CuSn8	CW453K	EN 12166	CuSn8	DIN 17682	C52100

• NICKEL SILVER WIRE

APPROXIMATIVE EQUIVALENCE					
EN DESIGNATION			DIN		ASTM DESIG.
Symbolic	Numeric	Standard	Designation	Standard	
CuNi12Zn24	CW4033	EN 12166	CuNi12Zn24	DIN 17660	C75700
CuNi18Zn20	CW4093	EN 12166	CuNi18Zn20	DIN 17660	C75200

• POSSIBILITIES OF SUPPLY (SECTION)

●	Round	0.10 - 22 mm
■	Square	0.5 x 0.5 - 10 x 10 mm
▬	Rectangular	as per customer´s requirements
	Special / Profile	as per customer´s requirements

• SERVICES

WIRE **STRAIGHTENING** AND **CUTTING**

SUPPLY OF WIRE IN **ANNEALED CONDITION**

• RECUBRIMIENTOS EN FUNCIÓN DEL TIPO DE ALAMBRE

• Tin coating	• Copper coating	• PET
• Galvanized	• Electrolytic zinc coating	• Zinc-aluminium coating
• Brass coating	• Nickel coating	• Phosphated coating

Further wire grades, coatings and range of diameters are available through the Sales Department.

VINCO

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WIRE DIVISION

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VIZCAINA DE INDUSTRIA Y COMERCIO

• STEEL WIRE

HIGH-CARBON STEEL

APPROXIMATE EQUIVALENCE			
EN		DIN DESIG.	ASTM DESIG.
Designation	Standard		
Non-alloyed and Cold-drawn Steel for Mechanical Springs			
SL	EN 10270-1	CLASSE A	A 227
SM	EN 10270-1	CLASSE B	
SH	EN 10270-1	CLASSE C	
DM	EN 10270-1	-	A 228
DH	EN 10270-1	CLASSE D	
-	-	CLASSE II (DIN 1723:1964-1)	
Steel for Oil-hardened and Drawn Springs			
FDC	EN 10270-2	FD	A 229-1
TDC	EN 10270-2	-	A 229-2
VDC	EN 10270-2	VD	A 230
FDSiCr	EN 10270-2	FDSiCr	-
TDSiCr	EN 10270-2	-	A 401
VDSiCr	EN 10270-2	VDSiCr	A 877
Annealed Steel wire Rods for Springs			
51CrV4	-	51CrV4	6145.6150

LOW-CARBON STEEL

APPROXIMATE EQUIVALENCE				
EN		DIN		AISI/SAE DESIG.
Designation	Standard	Designation	Standard	
C 7 D	EN 10016-2	D8-2	DIN 17140	1008
C 15E 2E	EN 10263-3	Cq 15	DIN 1654	1015
2282	EN 10263-4	22 B 2	DIN 1654	-
35B2	EN 10269	35 B 2	DIN 1654	-
11 SMn 30	EN 10087	9SMn28	DIN 1651	1213

• STAINLESS STEEL WIRE

APPROXIMATE EQUIVALENCE		
EN		AISI
Designation (includes DIN standard)	Standard	
Ferritic Stainless Steel		
X6Cr17 1.4016	EN 10088-3	430
Martensitic Stainless Steel		
X20Cr13 1.4021	EN 10088-3	420
Austenitic Stainless Steel		
X2CrNi18-9 1.4307	EN 10088-3	304 L
X3CrNiCu18-9-4 1.4567	EN 10088-3	304 Cu
X5CrNi18-10 1.4301	EN 10088-3	304
X5CrNiMo17-12-2 1.4401	EN 10270-3(')	316
X6CrNiMoTi17-12-2 1.4571	EN 10088-3	316 Ti
X7CrNiAl17-7 1.4568	EN 10270-3(')	631
X8CrNiS18-9 1.4305	EN 10088-3	303
X10CrNi18-8(NS) 1.4310	EN 10270-3(')	302
X10CrNi18-8(HS) 1.4310	EN 10270-3(')	302 HLS
X8CrMnCuNb17-8-3 1.4597	EN 10088-3	204 Cu
Stainless Steel for Welding		
X2CrNi19-9 1.4316	DIN 17145	308 L-Si
X2CrNiMo19-12 1.4430	DIN 17145	316 L-Si
Heat-resistant Stainless Steel		
X15CrNiSi25-21 1.4841	EN 10095	314

(') Grades as per EN 10270-3 are also to be found in the EN 10088-3 standard. These qualities are specifically for springs.

• ALUMINIUM WIRE

APPROXIMATE EQUIVALENCE					
DESIG. EN			DIN		ASTM DESIG.
Numeric	Symbolic	Standard	Designation	Standard	
EN AW-1050 A	EN AW-Al99.5	EN 573	Al 99.5	DIN 1745	1050A
EN AW-2011	EN AW-AlCu6BiPb	EN 573	Al Cu Bi Pb	DIN 1745	2011
EN AW-5052	EN AW-AlMg2.5	EN 573	Al Mg 2.5	DIN 1745	2052
EN AW-5754	EN AW-AlMg3	EN 573	Al Mg 3	DIN 1745	5754

• CONDITIONING FOR THE DIFFERENT TYPES OF WIRE

TYPE OF CONDITIONING	QUALITY									Maximum weights kg
	SL-SM SH DM DH II	FDC TDC VDC/VDSiCr FDSiCr TDSiCr	302 316 316 Ti 304-631 302HLS	303-304 304L 304 Cu 430-420 204 Cu-314	D8-2 Cq15 22B2 35B2 9SMn28	CuZn Cu-ETP CuSn Al CuNiZn	51CrV4	308 L-Si 316 L-Si	☐ ▭	
	COIL	✓	✓	✓	✓	✓	✓	✓			500
	Z SPOOL	✓	✓	✓			✓				800
	SPOOLED COIL	✓			✓	✓				✓	2000
	ORBIT				✓	✓	✓				1200
	BREMER COIL									✓	400
	DIN 160 PLASTIC SPOOL					✓	✓				7
	DIN 200 PLASTIC SPOOL	✓		✓							10
	DIN 300 PLASTIC SPOOL			✓		✓					17
	DIN 355 PLASTIC SPOOL	✓				✓					45
	SH 390 PLASTIC SPOOL SH 460			✓		✓				✓	45
	G240/40 METAL REEL G360/40	✓		✓		✓			✓		400
	WOODEN SPOOL			✓		✓				✓	400
	SPIDER / CARRIER	✓	✓		✓	✓	✓				2.000
	CARDBOARD DRUM					✓	✓		✓		400
	CUT-TO-LENGTH BARS	✓	✓	✓	✓	✓		✓	✓		

Customer's specifications

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Strength
Surface finish
Supply condition

• AXIAL DISPLACEMENT (HELIX/ PITCH)

CONTROL OF RESIDUAL TORSION

For a turned wap (cast) the condition of non-existence of residual tension in wires with a diameter of less than 5.00mm is respected if:

$$f_{real} < \frac{0.2 \cdot D}{\sqrt[4]{d}}$$