

Galvanized Steel

ALLOY	FeP02G	Fe E 250
Symbol Code	DX 51D	S 250 GD+Z
Numerical Code	1.0226	1.0242

Chemical Composition	% of Mass
Fe	99.500%
Si	0.270%
Mn	0.370%
P max	0.014%
S	0.009%
Cr	0.071%
Cu	0.250%
Mo	0.016%
Ni	0.012%
Other	0.050%

Physical Attributes

Specific Weight (kg/dm ³)	7.8700
Thermal Conductivity at 20° C (W/m ² K)	60.0000
Coefficient of Thermal Expansion (mm/m ² C)	0.0123
Modulus of Elasticity (N/mm ²)	210.0000
Electrical Conductivity (Ω/mm/m)	0.0930

Mechanical Attributes

Tensile Strength - Yield (N/mm ²)	220 - 300
Tensile Strength - Ultimate (N/mm ²)	500
Elongation at Break (A _{80mm} % min)	22
Vickers Scale	200 - 250

Reference Standards

UNI EN 10326:2004 Continuously hot-dip strip and sheet of structural Steels - Technical Delivery Conditions

UNI EN 10327:2004: 2004 Continuously hot-dip strip and sheet of low carbon steels for cold forming - Technical Delivery Conditions

Stainless Steel

ALLOY	X5CrNi	X2CrNiMo
AISI acronym	304	316L
DIN acronym	1.4301	1.4404

Chemical Composition	% of Mass	
C	≤ 0.070%	≤ 0.030%
Si	≤ 1.000%	≤ 1.000%
Mn	≤ 2.000%	≤ 2.000%
P max	≤ 0.045%	≤ 0.045%
S	≤ 0.030%	≤ 0.030%
Ni	≤ 0.110%	≤ 0.110%
Cr	17.5 - 19.5%	16.5 - 18.5%
Mo	-	2.0 - 2.50%
Ni	8.0 - 10.5%	10.0 - 13.0%
Other	-	-

Physical Attributes

Specific Weight (kg/dm ³)	7.9100	8.0000
Thermal Conductivity at 20° C (W/m ² K)	17.0000	17.0000
Coefficient of Thermal Expansion (mm/m ² C)	0.0103	0.0103
Modulus of Elasticity (N/mm ²)	196.0000	196.0000
Electric Conductivity (Ω/mm/m)	0.7140	0.7140
Melting Point (°C)	1400 - 1420	1400 - 1420

Mechanical Attributes

Tensile Strength - Yield (N/mm ²)	290 - 310	280 - 305
Tensile Strength - Ultimate (N/mm ²)	540 - 750	530 - 680
Proportionality Stress Limit (0.2% Rp _{0.2})	230	240
(1.0% Rp _{1.0})	260	270
Elongation at Break (A _{80mm} % min)	500	500
Brinell Scale (kg / mm ²)	< 165	< 170

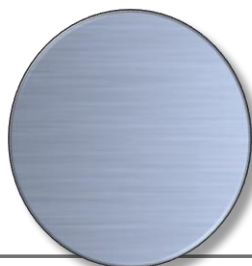
Reference Standards

EN 10088 - (1) Stainless Steel - List of Stainless Steels

EN 10088 - (2) Stainless Steel - Material Standard for Stainless Steel sheet, plate, and strip for general purposes

EN 10088 - (1) Stainless Steel - Material Standard for Stainless Steel semi-finished products, bars, rods, and sections for general purposes

EN 144- Determination of the resistance to corrosion for austenitic Stainless Steel



Cor-Ten Steel

ALLOY	Cor-Ten "A"
EN 10027 - 1 / ECISS IC10	S355J0WP

Chemical Composition	% of Mass
C max	0.120%
Si max	0.750%
Mn max	1.000%
P	0.6 - 0.15%
S max	0.040%
Ni max	0.650%
Cr	0.30 - 1.25%
Cu	0.25 - 0.55%
Other	-

Physical Attributes

Specific Weight (kg/dm ³)	7.8700
Thermal Conductivity at 20° C (W/m ² K)	60.0000
Coefficient of Thermal Expansion (mm/m ² C)	0.0108
Modulus of Elasticity (N/mm ²)	210.0000
Electrical Conductivity (Ω/mm/m)	0.0934

Mechanical Attributes

Tensile Strength - Yield (N/mm ²)	355
Tensile Strength - Ultimate (N/mm ²)	510 - 680
Elongation at Break (A _{80mm} % min)	< 1.5 ≤ 2.0 14 - 16 < 2.0 ≤ 2.1 15 - 17 < 2.5 ≤ 3.1 16 - 18

Reference Standards

UNI EN 10131 - Cold-Rolled, uncoated and zinc (or zinc-nickel electronically coated low carbon) and high yield strength steel flat products for cold forming - tolerances on dimensions and shape



Bronze

ALLOY	OT / 67 Copper
Type (Cold Rolled Laminate)	10-H10
Alloy Code	CW 506L
Designation	R350 / H095

Chemical Composition	% of Mass
Cu	66 - 68%
Pb max	0.200%
Fe max	0.150%
Al max	0.050%
Sn max	0.200%
Si max	0.150%
Mn max	0.100%
Ni max	0.300%
Impurities	0.400%
Zn	remainder

Physical Attributes

Specific Weight (kg/dm ³)	8.5000
Specific Heat Capacity at 20° C (cal/g)	0.0900
Thermal Conductivity at 20° C (W/m ² K)	0.2780
Linear Thermal Expansion Coefficient (20 to 300°C)	20.2 x 10 ⁻⁶
Electrical Resistivity at 20° C (μΩ cm)	6.6300
Modulus of Elasticity (N/mm ²)	110.0000
Melting Point (°C)	905 - 940
Structured Phase	Alpha

Mechanical Attributes*

Tensile Strength - Yield (N/mm ²)	200 - 360
Tensile Strength - Ultimate (N/mm ²)	350 - 430
Elongation (min %)	23
Brinell Scale (kg / mm ²)	95 - 125

Reference Standards

UNI EN 1652 - Copper and copper alloys - Plate, sheet, strip and circles for general purposes

