

Grades for Sheet Metal

Material	Other names	Description	Applications	Corrosion resistance	Post treatment capability	Welding capability	Price index	Density - g/cm3	Young modulus - Gpa	Yield strength - Mpa	Ultimate tensile strength - Mpa	Elongation at break - %	Hardness - HB brinell	Electrical Conductivity - % at 20 °C IACS	Electrical resistivity - Ω·mm2/m	Thermal conductivity - W/m-K
AISI1060	C60, 1.0601	This grade is carbon steel containing up to 0.4% silicon and 1.2% manganese. It is a general-purpose steel when high strength and high resistance are required	Architectural : building, bridges, railway Industrial equipments Automotive	Poor	Suitable for most of steel coating	Moderate to good	2	7.85	190 - 210	485	620	10	183	-	0,18	49,8
AISI4130	1,7218	This grade is low-alloy steel that shows good overall combinations of strength, toughness, fatigue strength and moderate corrosion resistance.	Automotive Hydraulic tools Aerospace Oil and gas industries Agricultural	Moderate	Suitable for most of steel coating	Good	2	7.86	200 - 210	460	560	21,5	217	-	9,6	42.7 - 51
S355	A572, Q345B	It is lightweight, yet offers great strength and ductility, making it ideal for use in structural application.	Energy Construction Industrial manufacturing	Moderate	Suitable for most of steel coating	Good	2	7.80	190 - 210	>=355 for thickness up to 16mm >= 345 for 16 - 40mm 295 for 100-150mm	510-680 Up to 3 mm 470-630 for 3-100 mm 450-600 for 100-150mm	22	146 - 187	-	-	-
DC01	AISI 1008, 1.0330, SPCC	This grade has the highest thermal conductivity among wrought carbon or non-alloy steels with fairly low electrical conductivity and low tensile strength.	Home appliance Furniture Automotive	Poor	Suitable for most of steel coating	Very good	1	7.86	200 - 215	<=280	270 - 410	28	<= 105 HV for annealed <= 115 for LC	-	-	45 - 72
DC01EK	1.0390, EN 10209	This material is excellent for flat cold forming products. It have several grade classified according to the maximum permissible yield strength. This grade is intended for easy forming by bending or moderate drawing.	Domestic appliances Sanitary ware Architectural panels Signage	Poor	Suitable for enamelling	Good	1	7.86	200 - 215	130 - 270	270 - 390	30	<=261	8	-	25 - 93
DC04EK	1.0392, EN 10209	Part of the same of the group as DC01EK, this grade is intended for more difficult deep drawing operations.	Domestic appliances Sanitary ware Architectural panels Signage	Poor	Suitable for enamelling	Good	1	7.86	200 - 215	140 - 270	270 - 350	36	<=266	8	-	25 - 93
DC06EK	1.0869, EN 10209	Part of the same of the group as DC01EK, this grade has excellent rheological and mechanical properties and can be used for forming very complex parts.	Domestic appliances Sanitary ware Architectural panels Signage	Poor	Suitable for enamelling	Good	1	7.86	200 - 215	<=230	270 - 350	38	<=269	8	-	25 - 93
Aluminum 10500 (thickness from 2mm to 6.00 mm)	3.0255, A91050	This alloy is a common grade for general sheet metal application where moderate strength is required. This aluminum is known for its excellent corrosion resistance, high ductility and highly reflective finish.	Building Signage Furniture Bridges and support structures Interior designs	Very good	Suitable for anodizing	Very good	3	2.7	71	105 - 145	>= 85	12	34	-	0,0282	222

Aluminium 6061	AlMg1SiCu, 3.3214, H20, A96061	It is the most popular aluminum alloy containing magnesium and silicon. The alloy is appreciated because of its versatile performance and all-around mechanical properties. Its shows excellent machinability and natural corrosion resistance.	Transport Marine industry Construction Aerospace Architectural decoration	Very good	Suitable for anodizing	Good	2	2.7	69	270 - 275	310	10 - 12	95	43	0,04	170
AISI 304	1.4301	This grade is the most versatile and widely used stainless steels with the addition of 18% chromium and 8% nickel. It has excellent mechanical properties and corrosion resistance.	Food processing Automotive Aerospace Chemical	Excellent	Suitable for most of steel coating	Very good	2	8	193	>=205	>=515	>= 43	<=201	2,4	0,72	16,2
CuZn36	2.0335	This grade is a very popular strengthened copper alloy with 36% zinc. The alloy has good cold forming properties and have interesting price due to the high zinc content.	Architecture Automotive Tanks Builders Hardware Electrical	Good	N/A	Very good	5	8.7	200	250	400 - 550	20 - 23	55- 73	27	0.066 - 0.083	120