

CORTEN STEEL PLATES

Weathering steel, best-known under the trademark COR-TEN steel and here and there composed without the hyphen as "Corten steel", is a gathering of steel alloys which were created to hinder the requirement for painting, and structure a stable rust-like appearance if presented to the climate for a few years.

United States Steel Corporation (USS) holds the enlisted trademark on the name COR-Ten.[1] Although USS sold its discrete plate business to International Steel Group (now Arcelor-Mittal) in 2003,[2] regardless it offers COR-TEN marked material in strip-factory plate and sheet structures.

The first COR-TEN got the standard assignment A 242 ("COR-TEN A") from the ASTM International gauges group. More current ASTM evaluations are A 588 ("COR-TEN B") and A 606 for meager sheet. In Indian Standards is relevant according to IRS M-41. All combinations are in like manner creation and utilization.

Characteristic:

"Weathering" implies that because of their compound creations, these steels display expanded resistance to barometrical corrosion contrasted with unalloyed steels. This is on account of the steel structures a defensive layer on its surface affected by the climate.

The corrosion impeding impact of the defensive layer is delivered by the specific appropriation and centralization of alloying components in it. The layer ensuring the surface creates and recovers persistently when subjected to the impact of the

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climate. At the end of the day, the steel is permitted to rust keeping in mind the end goal to structure the "defensive" covering.

Chemical composition of Cor-ten grades

Grade	%C	%Si	%Mn	%P	%S	%Cr	%Cu	%V	%Ni
Cor-ten A	0.12	0.25-0.75	0.20-0.50	0.07-0.15	0.030	0.50-1.25	0.25-0.55		0.65
Cor-ten B	0.16	0.30-0.50	0.80-1.25	0.030	0.030	0.40-0.65	0.25-0.40	0.02-0.10	0.40

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ASTM A 242

The original A 242 alloy has a yield strength of 50,000 pounds per square inch (340,000 kPa) and ultimate tensile strength of 70,000 psi (480,000 kPa) for light-medium rolled shapes and plates up to 0.75 inches (19 mm) thick. It has yield strength of 46,000 psi (320,000 kPa) and ultimate strength of 67,000 psi (460,000 kPa) for medium weight rolled shapes and plates from 0.75–1 inch (19–25 mm) thick. The thickest rolled sections and plates – from 1.5–4 in (38–100 mm) thick have yield strength of 42,000 psi (290,000 kPa) and ultimate strength of 63,000 psi (430,000 kPa).

ASTM A 588

A 588 has a yield strength of at least 50,000 psi (340,000 kPa), and ultimate tensile strength of 70,000 psi (480,000 kPa) for all rolled shapes and plate thicknesses up to 4 in (100 mm) thick. Plates from 4–5 in (100–130 mm) have yield strength at least

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46,000 psi (320,000 kPa) and ultimate tensile strength at least 67,000 psi (460,000 kPa), and plates from 5–8 in (130–200 mm) thick have yield strength at least 42,000 psi (290,000 kPa) and ultimate tensile strength at least 63,000 psi (430,000 kPa).

IRSM 41

IRSM 41 Steel: Body panel of Coal Wagons like BOXNHA encounter corrosive environment due to presence of sulphur and other carbonic acid components in coal. Use of corrosion resistance steel to IRSM-41 will face the situation better due to formation of an adherent protective oxide film on the surface if it is left undisturbed.

IRSM-41 steel has following properties-

- n Stronger than mild steel
- n Easily weldable
- n Develops its own protective film against corrosion.

Services

Chhajer Steel can offer plasma cutting of Corten steel plate up to 10 feet wide and 95 feet long for every your necessities.

COR-TEN® A, COR-TEN®A, COR-TEN A, CORTEN-A, CORTEN A
COR-TEN® B, COR-TEN®B, COR-TEN B, CORTEN-B, CORTEN B
ASTM A588 Grade A, ASTM A 588 Grade-A, ASTM A-588 Grade A
ASTM A588 Grade B, ASTM A 588 Grade-B, ASTM A-588 Grade B
ASTM A588 Grade C, ASTM A 588 Grade-C, ASTM A-588 Grade C
ASTM A242 Type 1, ASTM A242 Type-1, ASTM A-242 Type 1
S355JOWP EN 10025-5, S355JOWP EN10025-5, S355 JOWP EN-10025-5
S355JOWP+N EN 10025-5, S355JOWP+N EN10025-5, S355 JOWP+N EN-10025-5
S355J2W EN 10025-5, S355J2W EN10025-5, S355 J2W EN-10025-5

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S355J2W+N EN 10025-5, S355J2W+N EN10025-5, S355 J2W+N EN-10025-5
S355J2G1W EN 10155, S355J2G1W EN10155, S355 J2G1W EN-10155
S355K2G1W EN 10155, S355K2G1W EN10155, S355 K2G1W EN-10155
S355J2G2W EN 10155, S355J2G2W EN10155, S355 J2G2W EN-10155
S355K2G2W EN 10155, S355J2G2W EN10155, S355 K2G2W EN-10155
SAILCOR IRSM41, IRSM-41, IRS-M41 FOR RAILWAY WAGON & CONTAINERS

CORROSION RESISTANT AND WEATHER RESISTANT : STEEL CAN BE ALSO SUPPLIED ACCORDING TO FOLLOWING STANDARD & SPECIFICATIONS :

Inspection & Approval Certificates : C/W Certificate (Calibration Works Certificate) EN 10204 3.1 / DIN 50049 3.1 / ISO 10474 3.1 Mill Test Certificate, NACE MR-0103 / NACE MR-0175 / ISO 15156, CE Marked, European Pressure Equipment Directive PED-97/23/EC, AD-2000-WO, ASME Boiler & Pressure Vessel Code Sec.II Part A Ed. 2008, API 6A (American Petroleum Institute), with 3.2 certificate duly Certified & Approved by LRS (Lloyd's Register), GL (Germanischer Lloyd), BV (Bureau Veritas), DNV (Det Norske Veritas), ABS (American Bureau of Shipping), SGS, TUV, RINA, IRS, NORSOK Approved Standard M-630, M-650 Rev.3

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