

Corten A – a weather resistant steel created by alloying copper, chromium and nickel. In addition to this, Corten A has added phosphorous which makes the material best suited for gas flue applications and for aesthetic facias. The material is not recommended in heavy load bearing applications – in this case Corten B or S355J2W should be considered.

The top layer of the material reacts with atmospheric elements to form a rust coloured protective layer which not only makes the steel virtually maintenance free but also provides a pleasing and consistent finish.

Please refer to the technical specifications below...

Grades & Equivalents

Corten EN 10025-5:2004

Corten A S355 J0WP

Chemical Composition

Grade	C	Si	Mn	P	S	Al	V	Cu	Cr	Ni
Corten A	0.12	0.25/0.75	0.20/0.50	0.07/0.15	0.030	0.015/0.06	–	0.25/0.55	0.50/1.25	0.65

Maximum values unless otherwise stated

Mechanical Properties

Grade	Thickness (mm) Strip Products	Plate Products	Yield Strength Rel N/mm ² Minimum	Tensile Strength Rm N/mm ² Minimum	Elongation A50 % Minimum
Corten A	2 – 12	6 – 12	345	485	20

(Please note: the technical information above is for guidance only – for exact specifications please check with our Sales Team)

S355J0WP is a structural weathering steel which is also referred to as atmospheric corrosion resistant steel. The main alloying elements are chromium nickel and copper with added phosphorous which gives it excellent self protecting qualities. As the steel reacts with elements in the atmosphere, the material forms a layer of rust over time which in essence protects the steel from corrosion.

S355J0WP (which is an equivalent grade to Corten A) provides a long lasting and economic structural steel solution for use in applications such as steel bridges stack gas applications and in steel sculptured buildings due to the material's aesthetically pleasing finish.

Grades & Equivalents

EN 10025-5:2004	Corten
S355J0WP	Corten A

Chemical Composition

Grade	C	Si	Mn	P	S	N	Addition of nitrogen binding elements	Cr	Cu
S355J0WP	0.12	0.75	1.0	0.06/0.15	0.035	0.009	–	0.30/1.25	0.25/0.55

Maximum values unless otherwise stated

Mechanical Properties

Grade	Min. Yield Strength Reh MPa						Tensile Strength Rm MPa		
	Nominal Thickness (mm)								
	≥16	>16≥40	>40≥63	>63≥80	>80≥100	>100≥150	>3	>3≥100	>100
S355J0WP	355	345	–	–	–	–	510/680	470/630	–

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