

## Henan BEBON international co., ltd

BS4360 WR50A, WR50A steel, WR50A grade, WR50A steel grade, WR50A steel plate, WR50A steel supplier

# **WR50A Steel Description**

WR50A 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.

WR50A steel is the Equivalent grades as S355J0WP (1.8945) steel in EN 10025 - 5 : 2004 standard and FE510C1K1 steel in UNI standard and also E36WA3 steel in NFA 35-502 standard.

# **WR50A Steel Application**

WR50A (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. Moreover, WR50A steel with improved atmospheric corrosion resistance has a wide range of applications: architecture, smokestacks, fabrication, freight wagons, silos, pylons etc..

#### WR50A Steel Supply Size

Thickness: 2mm to 460mm Width: 1500mm to 3200mm Length: 6000mm to 12000mm

#### **WR50A Steel Delivery state**

Hot Rolled, Cold Rolled, Normalized, Quenched, Tempering, Thermal Mechanical Control Process (TMCP), Electroslag Remelting Technical, HIC test.

#### **WR50A Steel Services**

Cutting, Painting, shot blast, and The third party inspection in DNV, BV, LR, GL, ABS, CCS, SGS, and others in super thick ship steel plate.

#### **WR50A Steel Chemical Composition**

C %	Mn %	Cr %	Si %	CEV %	S %
Max 0.12	Max 1	0.3-1.25	Max 0.75	Max 0.52	Max 0.035
Cu %	P %	N %			

## Bebon steel — The most professional exporter on weathering resistant steel

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0.25-0.55	0.06 - 0.15	Max 0.009			
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Method of deoxidation FN = rimming steels not permitted.

$$CEV = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$$

For long products the P and S content can be 0.005% higher.

The WR50A steels may show a Ni content of max. 0,65 %.

The max. value for nitrogen does not apply if the chemical composition shows a minimum total Al content of 0,020 % or if sufficient other N binding elements are present. The N binding elements shall be mentioned in the inspection document

**WR50A Steel Mechanical Properties** 

Grade	Min. Yield Strength Mpa						Tensile Strength MPa			Impact	
WR50A	Nom	Nominal Thickness (mm)				Nominal Thickness (mm)			degree	J	
Thick mm	≤16	>16 <40	>40 <63	>63 <80	>80 ≤100	>100 ≤150	≤3	>3 ≤100	>100 ≤150		
WR50A	355	345					510-680	470-630		0	27

The tensile test values given in the table apply to longitudinal samples; in case of strip and sheet steel of widths of  $\geq$ 600 mm they apply to transverse samples.

If WR50A mechanical properties have been significantly modified by heavy coldforming, either stress relief annealing or normalised may be applied. Normalised should also be applied following hotforming outside of the temperature range of 750 - 1.050 °C and after overheating.

Henan Bebon Internation Co., Ltd is specialized in super thick atmospheric corrosion resistance of structural steel plate. Bebon International is a professional WR50A steel exporter and a steel Stockist in china. We keep more than 1000 tons WR50A steel in stock every month. Besides that, Bebon Internationl has very good relationship with every big steel mill, so we could promise the delivery time and the competitive price compared with other companies. So, if you have any inquiry about WR50A steel, if you are looking for a sincerely WR50A steel supplier and want to get the WR50A steel price, please do not hesitate to contact us. Any need in WR50A steel grade, please feel free to contact us by email or calling to us, we will supplier high quality WR50A steel with competitive price to you soon.

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