



ISPAT INDUSTRIES LTD., KALMESHWAR

Quality Assurance Department

Technical Delivery Conditions (TDC)

CORTEN STEEL - CRCA

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Application	1	Railway wagons & coaches
	2	
	3	

Equivalent ref. Grade	Specified Grade

Chemistry,wt%	Range	C	Si	S	P	Mn	Ni	Cr	Cu	Mo	Nb	V	Ti	Al	N ppm
CORTEN	Min.	0.040	0.300	-	0.080	0.350	0.300	0.350	0.300	-	-	-	-	0.020	-
	Max.	0.060	0.360	0.020	0.100	0.450	0.400	0.450	0.400	-	-	-	-	0.050	-

Mechanical Properties	Range	YS	UTS	% Elongation		Bend Test	ECV	r-bar	n-val	HRB
		Mpa	Mpa	50 GL	80 GL	180°	mm			
CORTEN	Min.	360	500	21	-	-	-	-	-	60
	Max.	430	600	-	-	-	-	-	-	75

Surface Finish: Matte / Bright

Process Capability:

IIL Grade	Range	Thickness, mm	Width, mm	Length, mm
CORTEN	Min	0.60	-	As per
	Max	3.00	1250	Requirement

Note:

1	
2	

Coil Weight: 10 MT Max. **Coil Internal Diameter:** 508 mm, 20" **Packet Weight:** 2.00 - 3.00 MT

Process Route:

HR Coil --> CPL --> Mill --> ECL --> BAF --> Skinpass --> Finishing --> Packing --> Despatch

Certification:

The Mill Test Certificate (MTC) gives the results of all the tests required by the standards for each grade (Chemistry, Mechanical).

Tolerances: Please refer annexure : CR SPECIFICATION

Prepared by:	Approved by: Dr.N.C.Jain Vice President - QA	Issued by:
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