

## ThyssenKrupp COR-TEN A Structural Steel

Category : Metal , Ferrous Metal , Alloy Steel , Carbon Steel , Low Carbon Steel

### Material Notes:

This Material Specification applies to plates up to 12.5 mm in thickness made from COR-TEN A. Definition: Weathering means that due to its chemical composition the COR-TEN A steel, when utilized unprotected, exhibits increased resistance to atmospheric corrosion compared to unalloyed steels. This is because it forms a protective layer on its surface under the influence of the weather. The layer protecting the surface develops and regenerates continuously when subjected to the influence of the weather. In general the covering layer offers protection against atmospheric corrosion in industrial, urban and country-side climate. In cases of particular air pollution by aggressive agents conventional surface protection is recommended. Coating is absolutely necessary in cases of contact with water for long periods, when permanently exposed to moisture, or if it is to be used in the vicinity of the sea. The susceptibility of paint coats to undercreepage by rust is less in the case of weathering steel than in the case of comparable non-weathering steel. Application: The steel is used for various types of welded, bolted and riveted constructions e.g. steel frame structures, bridges, tanks and containers, exhaust systems, vehicles and equipment constructions. Information Provided by Thyssen Krupp

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ThyssenKrupp-COR-TEN-A-Structural-Steel.php](http://www.lookpolymers.com/polymer_ThyssenKrupp-COR-TEN-A-Structural-Steel.php)

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	>= 410 MPa	>= 59500 psi	
	@Thickness 3.00 mm	@Thickness 0.118 in	
Tensile Strength, Yield	470 - 630 MPa	68200 - 91400 psi	
	@Thickness >=3.00 mm	@Thickness >=0.118 in	
Tensile Strength, Yield	>= 275 MPa	>= 39900 psi	
	>= 355 MPa	>= 51500 psi	
Elongation at Break	20 %	20 %	
	25 %	25 %	
Charpy Impact	27.0 J	19.9 ft-lb	
	@Thickness 10.0 mm, Temperature -20.0 °C	@Thickness 0.394 in, Temperature -4.00 °F	

Component Elements Properties	Metric	English	Comments
Carbon, C	<= 0.12 %	<= 0.12 %	
Chromium, Cr	0.50 - 1.25 %	0.50 - 1.25 %	
Copper, Cu	0.25 - 0.55 %	0.25 - 0.55 %	
Manganese, Mn	0.20 - 0.50 %	0.20 - 0.50 %	

<small>Nickel, Ni</small> Component Elements Properties	<small>&lt;= 0.65 %</small> Metric	<small>&lt;= 0.65 %</small> English	Comments
Phosphorous, P	0.070 - 0.15 %	0.070 - 0.15 %	
Silicon, Si	0.25 - 0.75 %	0.25 - 0.75 %	
Sulfur, S	<= 0.030 %	<= 0.030 %	

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