

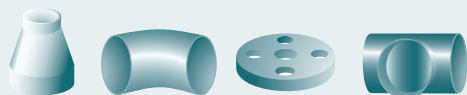
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Specifications Type 330



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Type 330

Type 330 (UNS N08330) is an austenitic heat resistant iron-nickel-chromium alloy which, with silicon and manganese additions, offers a combination of strength and resistance to carburisation up to 1100°C.

This alloy is characterised by:

- good carburisation resistance, even in alternating reducing-oxidizing atmospheres, and is used in high temperature industrial environments

Designation and Standards

Country National Standards	Material Designation	Chem. composition	Specification				
			Tube and pipe seamless	Tube and pipe welded	Sheet and plate	Rod and bar	Strip
France AFNOR	Z12 NCS3516						
Germany	X12 NiCrSi3616						
United Kingdom BS							
USA ASTM	UNS N08330		B535	B535	B536	B511	B536
ISO							

Chemical Composition(%)

Type 330	Ni	Cr	Fe	C	Mn	Si	Cu						
min	34.0	17.0	-	-	-	0.75	-						
max	37.0	20.0	bal	0.08	2.0	1.5	1.0						

Mechanical Properties

The following mechanical properties are applicable to Type 330 in the indicated forms and in the annealed condition. Specified properties of materials outside these ranges are subject to special enquiry.

According to spec	Condition	Tensile strength min N/mm ²	0.2% Yield Strength min N/mm ²	Elong min %	Brinell hardness HB max
B511	Annealed	483	207	30	-
B535	Annealed	483	207	30	70-90HRB
B536	Annealed	483	207	30	70-90HRB

Please Note: The figures quoted are minimum requirements for the specifications quoted. For further information, please refer to the standards listed or contact our sales or QA Departments.

Applications

Typical applications include:

- furnace muffles
- radiant tubes
- flare stack tips
- heat exchangers
- gas turbine parts
- salt pots

Stock Size Range

Type 330 - Bar, Tube, Pipe and Fittings

Bar mm dia	Tube mm o/d	Pipe nb sch10 - sch80	Seamless fittings nb
3.18 - 65.0	(1)	(1)	*

*Fittings in this grade can be manufactured on request.
 (1) Tube and pipe in this alloy are available by request.

Type 330 - Sheet and Plate

Size	2m x 1m	8' x 4'	2.5m x 1.25m	3m x 1.2m	3m x 1.5m
Thickness	-	-	-	3	3, 4, 4.76, 6, 10mm

Size	10' x 5'	4m x 2m	6m x 2m	6.096m x 2.438m
Thickness	3, 5, 6, 10, 12mm	16, 19mm	-	3, 4.76, 6, 8, 9.53, 12mm

The above tables represent our standard stock range.
 Other sizes can be manufactured to order, often with short lead times.