



B30 - Structural steels

When strength is more important than forming and ductility properties.

B30

Properties

Structural steels are carbon-manganese steels with a guaranteed minimum strength (yield strength and ultimate tensile strength) and satisfactory ductility. They are suitable for most common applications and are readily available from distributors and Steel Service Centres in the most common forms and dimensions.

HC180 AM FCE grade complies with the EN 10130:2006 standard for DC01.

B30

Advantages

They offer good weldability with conventional welding processes and are mainly used for applications where strength is more important than forming and ductility properties.

B30

Applications

They are mainly used in general industry and in mechanical engineering. Applications include drums, building components, containers, storage tanks and roll formed profiles.

B30

Surface quality

Surface cleanliness

If improved surface cleanliness is required, ArcelorMittal also offers this range with compulsory use of hydrogen annealing: HCxxxCS AM FCE grades.

B30

Brand correspondence

<i>HC180 AM FCE</i>
<i>HC200 AM FCE</i>
<i>HC220 AM FCE</i>
Grades in italics: not included in the standard

B30

Dimensions

Thickness (mm)	Min width	HC180 AM FCE, HC200 AM FCE		HC220 AM FCE
		Max width		Max width
$0.50 \leq th < 0.60$	600	1665		1580
$0.60 \leq th < 0.70$		1835		1705
$0.70 \leq th < 0.80$		1975		1860
$0.80 \leq th < 1.90$		2069		
$1.90 \leq th < 2.20$				
$2.20 \leq th < 3.00$				2070
			2010	

B30

Mechanical properties

	Direction	Thickness (mm)	R_e (MPa)	R_m (MPa)	A_{80} (%)
<i>HC180 AM FCE</i>	T	0.5 - 3	180 - 280	300 - 360	≥ 32
<i>HC200 AM FCE</i>	T	0.5 - 3	200 - 300	310 - 370	≥ 31
<i>HC220 AM FCE</i>	T	0.5 - 3	220 - 280	320 - 380	≥ 28

Grades in italics: not included in the standard

B30

Chemical composition

	C (%)	Mn (%)	P (%)	S (%)	Si (%)	Al (%)	Galvanisation
<i>HC180 AM FCE</i>	≤ 0.120	≤ 0.60	≤ 0.030	≤ 0.025	≤ 0.03	≥ 0.020	Class 1
<i>HC200 AM FCE</i>	≤ 0.130	≤ 0.60	≤ 0.030	≤ 0.025	≤ 0.03	≥ 0.020	Class 1
<i>HC220 AM FCE</i>	≤ 0.120	≤ 0.70	≤ 0.045	≤ 0.025	≤ 0.03	≥ 0.020	No

Grades in italics: not included in the standard

Any questions?

Ask them via our contact form on <https://industry.arcelormittal.com/getintouch>

All details provided in the ArcelorMittal Flat Carbon Europe S.A. catalogue are for information purposes only. ArcelorMittal Flat Carbon Europe S.A. reserves the right to change its product range at any time without prior notice.