



# Cathode bars

ArcelorMittal Special Profiles



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**ArcelorMittal Commercial RPS** is part of the world's number one steel company and is leader company in the railway, sheet piles and special sections products.

The rolling mills are located in Steelton (USA), Gijón (Spain), Ostrava (Czech Republic), Rodange (Luxembourg), and Dabrowa Górnicza Chorzow (Poland), where we produce environmentally friendly products and services for domestic and foreign market.

We are guiding the evolution of steel in the transport, high speed railway, construction, etc., to secure the best future for the industry and future generations to come.

AM Commercial RPS has implemented and keeps update a quality assurance system that fulfills the requirements of the international standard ISO 9001, OHSAS 18001 and Environmental Management System in accordance with the International Standard ISO 14001.



## Supply conditions:

We supply according to the customer's specifications:

- Hot sawn lengths up to 12 m
- Cold sawn lengths from 1.0 m to 12.0 m
- Fabricated bars, including machining, drilling, welding, sandblasting and coating works.

Please contact us if you have special requirements.

## Dimensional tolerances:

Standard tolerances as follows.

Width & Thickness: + / - 2mm.

Length: Hot sawn +100 / -0mm.

Cold sawn +10/ -0mm.

Straightness: 1mm/1m.

Corner radii: most bar have corner radii within 9-20mm

## Steel grades:

### Chemical Composition

Grade	%C	%Mn	%Si	%P	%S	%N <sub>2</sub>
Low resistivity	≤ 0.060	≤ 0.400	≤ 0.070	≤ 0,030	≤ 0.040	≤ 0.012
Ultra Low resistivity	≤ 0.040	≤ 0.400	≤ 0.070	≤ 0,030	≤ 0.030	≤ 0.012

### Mechanical properties

Grade	Rm min. (MPa)	Re min. (MPa)
Low resistivity	300	140
Ultra Low resistivity	270	130

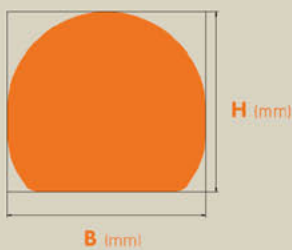
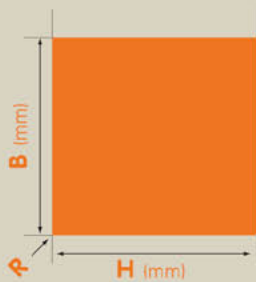
### Resistivity

Low Resistivity	≤ 13 μΩ · cm <sup>2</sup> at 0°C.
Ultra Low resistivity	≤ 11 μΩ · cm <sup>2</sup> at 0°C.



## Dimensions

ArcelorMittal Commercial RPS offers an extensive range of rectangular, square and egg-shaped bars for the use as cathode bars (collector bars) for the primary aluminium smelters worldwide.



Dimensions B x H x (R)	Weight kg/m	Dimensions B x H	Weight kg/m
mm	kg/m	mm	kg/m
100x100	76,32		
122x122	116,40	160x140	175,70
127x127	125,40	160x160R10	200,30
130x110	111,58	160x160R15	199,50
130x130	130,40	165x70	89,70
140x65	70,70	165x80	102,70
140x100	109,50	168x150	195,60
140x115	125,44	170x60	79,80
140x125	136,40	170x150	199,20
140x120	131,50	170x170	225,70
140x140	153,10	180x65	91,30
145x135	153,00	180x80	112,50
150x90	105,50	180x100	140,40
150x100	117,40	180x120	168,80
150x110	129,10	180x140	196,90
150x115	134,30	190x80	118,30
150x120	140,90	190x120	178,70
150x140	164,60	190x140	208,60
150x150R10	175,95	200x90R9	140,70
150x150R20	173,93	200x90R11,5	140,40
160x70	85,30	200x155	242,60
160x90	112,10	202x150	237,18
160x110	135,46	220x90	155,00

Dimensions B x H x (R)	Weight kg/m
mm	kg/m
160x145	155,70
160x150	161,90



### Product developments:

We work in close cooperation with the smelters around the world to improve the performance of the collector bars in the process.

Please contact us to discuss any projects.



ArcelorMittal



transforming tomorrow



[www.arcelormittal.com/rails+specialsections](http://www.arcelormittal.com/rails+specialsections)