

## ArcelorMittal Rails & Special Sections

# **Track Shoes**

**ArcelorMittal Special Profiles** 

# **Track Shoes**

ArcelorMittal – Rails & Special Sections is a major player in the construction equipment industry by supplying a comprehensive range of single, double and triple grouser track shoe profiles to its customers located anywhere in the world. They are designed to perform well in heavy duty environments without compromising the product's service life.

Our rolling mill is located in Rodange (Luxembourg), where we produce environmentally friendly products and services for the national and international markets. We have been leading the evolution of steel in transportation, construction, mining, etc., to secure the best future for the industry and future generations to come.

ArcelorMittal has implemented and keeps updated a quality assurance system that fulfils the requirements of the international standard ISO 9001, Environmental Management System in accordance with the International Standard ISO 14001 and Occupational Health and Safety (OH&S) Management System according ISO 45001.

This leaflet offers a quick overview of the standard "open roll" profiles available at our Rodange site, in Luxembourg. Our team will provide you detailed information on the current range of track shoes and help you to develop unique solutions to meet your requirements.



#### Achieving carbon-neutral steelmaking

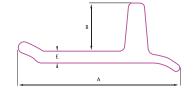
ArcelorMittal Europe has committed to reduce CO2 emissions by 35% by 2030, with a further ambition to be carbon neutral by 2050, in line with the EU's Green Deal and the Paris Agreement.

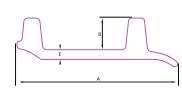
As the leading global steel company, we are engaged in the most important challenge faced by the industry – that of producing all the steel the world needs in an environmentally sustainable way.

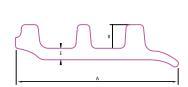
XCarb<sup>™</sup> is designed to bring together all of ArcelorMittal's reduced, low and zero-carbon products and steelmaking activities, as well as wider initiatives and green innovation projects. As a result, we will be able to leverage a single effort focused on achieving demonstrable progress towards carbon neutral steel.

Alongside the new XCarb<sup>™</sup> brand, we have launched three initiatives: the XCarb<sup>™</sup> innovation fund, XCarb<sup>™</sup> green steel certificates and XCarb<sup>™</sup> recycled and renewably produced for products made via the Electric Arc Furnace route using scrap. ArcelorMittal's XCarb<sup>™</sup> innovation fund will invest in companies developing breakthrough technologies that will accelerate the steel industry's transition to carbon neutral steelmaking. Our industry-first XCarb<sup>™</sup> green steel certificates allow customers to report an equivalent reduction in their Scope 3 emissions, in accordance with the Greenhouse Gas Protocol, and XCarb<sup>™</sup> recycled and renewably produced steel is made from high levels of recycled steel using 100% renewable electricity in an Electric Arc Furnace.

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CECTION	WEIGTH	DIMENSIONS (mm)			
SECTION	(Kg/m)	А	В	E	
SINGLE GROUSERS					
TS 1-31	30,56	232,50	65,00	12,00	
TS 1-32A	31,10	236,50	58,70	13,30	
TS 1-32	32,20	236,50	58,70	13,80	
TS 1-38	38,20	245,00	71,50	14,70	
TS 1-47	47,35	247,60	71,40	16,60	
TS 1-53	53,90	242,50	84,00	19,00	
TS 1-56A	50,90	260,00	77,50	16,50	
TS 1-56	55,88	260,00	77,50	19,00	
TS 1-56L	56,33	264,00	77,50	19,00	
TS 1-71	71,05	301,00	87,50	20,50	
TS 1-73	73,51	305,00 93,00		20,50	
TS 1-84	83,90	322,00	93,00	23,00	
DOUBLE GROUSERS					
TS 2-49	48,52	250,00	49,50	15,00	
TS 2-66	66,35	261,00	46,00	25,00	
TS 2-73	73,70	306,00	50,00	20,50	
TS 2-73B	80,78	306,00	50,00	23,50	
TS 2-104	104,11	330,00	50,00	35,00	
	- 1	,			
TRIPLE GROUSERS					
TS3-27	27,80	219,00	30,00	8,50	
TS3-27B	30,30	219,00	30,00	10,00	
TS3-27C	32,08	219,00	30,00	11,00	
TS 3-27D	27,90	219,00	26,00	10,00	
TS3-28AA	26,50	217,50	26,00	8,50	
TS3-28A	27,20	217,50	26,00	9,00	
TS3-28	28,87	217,50	26,00	10,00	
MRO	29,50	203,00	25,30	12,70	
TS3-32	32,64	222,50	28,00	12,50	
TS3-38	38,92	240,00	26,50	13,00	
TS3-38B	42,55	240,00	26,50	15,00	
TS3-40	40,27	247,00	36,00	11,00	
TS3-40B	44,12	247,00	36,00	13,00	
TS3-45	45,48	254,50	37,00	13,00	
TS3-48	48,01	253,00	30,50	16,50	
TS3-51	51,10	254,50	37,00	16,00	
TS3-55	55,09	254,50	37,00	18,00	
TS3-60	60,46	254,50	37,00	20,50	
MR6	69,80	266,00	30,00	30,00	

# **Steel grades**

### **Track Shoes grades**

ArcelorMittal - Rails & Special Sections proposes mainly two steel grades for track shoes.

\*TSG 100 is a softer grade used to fulfill the requirements of material like 24MnCrB4, 26MnB5 or equivalent.

**\*TSG 200** is harder and used for material like 28MCB6 or equivalent. Both grades contain boron, titanium and chromium to ensure a good hardenability. To ensure also a good internal metal soundness, the sulfur and phosphorus contents are always on 0,035%.

GRADE	Lim.	С	Mn	S	Р	Si	Cr	Ti	В	Мо
TSG 100	<mark>min</mark> max	<mark>0,22</mark> 0,28	<mark>1,00</mark> 1,30	0,035	0,035	<mark>0,15</mark> 0,35	<mark>0,25</mark> 0,45	<mark>0,02</mark> 0,05	<mark>0,0005</mark> 0,0030	0,05
TSG 200	<mark>min</mark> max	<mark>0,24</mark> 0,30	<mark>1,00</mark> 1,30	0,035	0,035	<mark>0,15</mark> 0,35	<mark>0,45</mark> 0,65	<mark>0,02</mark> 0,05	<mark>0,0005</mark> 0,0030	0,05

#### Jominy hardenability for Tracks Shoes

The Jominy curve limits (min-max) are given for the depths currently used on ArcelorMittal Europe - Rails & Special Sections mill certificates.

Other depths and limits can be agreed with the customer and reported on the mill certificates on request.

Mill certificates are according to EN 10204 type 3.1.

NUANCE (MM)	HRc	J2	J13	J19	J25
NUANCE (1/16")	HRc	J1	J8	J12	J16
TSG 100	<mark>min</mark> max	<mark>45</mark> 52	<mark>35</mark> 48	28	- 35
TSG 200	min max	<mark>45</mark> 52	<mark>38</mark> 52	33	- 42



### **ArcelorMittal Commercial Sections**

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Additional information can be found on: http://rails.arcelormittal.com

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