

ArcelorMittal Madrid, S.L.
Long Carbon Steel Europe
CARRETERA TOLEDO, N-401 - KM. 9,200
28021 VILLAVERDE (Madrid)
TELEF. (91) 797.23.00 - FAX (91) 795.31.81



QUALITY CERTIFICATE

MAD P-8568

DISCHARGE ADDRESS		CUSTOMER	
Plesa Anahuac Y Cias, S.A. de C.V. Av. Valle de las Alamedas 66-O Col. S. Francisco Chilpan, Tul MEXICO		Plesa Anahuac Y Cias, S.A. de C.V. Av. Valle de las Alamedas 66-O Col. S. Francisco Chilpan, Tul MEXICO	
SHIPPED AND CERTIFIED BY		CREDIT NUMBER	PORT OF LOADING
ARCELORMITTAL MADRID, S.L. CARRETERA TOLEDO, N-401 - KM. 9,200 28021 VILLAVERDE (Madrid) TELEF. (91) 797.23.00 - TELEX 22120 - 49632 ARIS			BILBAO, SPAIN
		PORT OF DISCHARGE	VESSEL
		VERACRUZ	TOLTECA
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
mcabello	E-11736	1700006673	31/12/2007

Material: WF Vigas,

El exportador de los productos incluidos en el presente documento,
Autorización aduanera no.

ARCELORMITTAL MADRID, S.L. ES/28/0047/03

Declara que, salvo indicación en sentido contrario, estos
productos gozan de un origen preferencial ESPAÑA

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
+/ROJO							
WF BEAMS 21x68	40'	30	4	120	4935	148.050	74090,74263,74264,74269,74270,74271,74272,74273,74290,74291,74292
WF BEAMS 21x73	40'	24	4	96	5298	127.152	73724,73725,73726,74307,74309,74310,74311,74312,74313,74314
WF BEAMS 21x83	40'	32	3	96	4518	144.576	73272,73718,73722,73724,74290,74294,74297,74298,74299,74300,74301,74302

TOTAL BUNDLES 86 TOTAL WEIGHT 419.778 Kg.

A02 EN 10204/3.1.B

CSA G40.21 50W/ASTM A36-04/A572 G50-04/A992-04/A6-04

(B01/B02/B03) A03

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)												
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn	CEV
73272	,093	,825	,222	,020	,023	,003	,092	,107	,023	,435	,017	,013	,29
73718	,092	,768	,187	,015	,028	,002	,105	,151	,027	,475	,021	,020	,29
73722	,093	,796	,193	,019	,012	,003	,132	,122	,024	,447	,021	,020	,30
73724	,085	,830	,183	,015	,028	,003	,097	,148	,025	,441	,019	,025	,29
73725	,086	,796	,204	,015	,027	,003	,112	,116	,023	,489	,018	,021	,29
73726	,090	,866	,196	,011	,022	,003	,073	,098	,022	,319	,018	,035	,28
74090	,120	1,185	,214	,016	,024	,003	,081	,094	,030	,351	,018	,021	,37
74263	,089	,839	,187	,015	,019	,002	,090	,080	,019	,411	,018	,016	,28
74264	,090	,857	,203	,012	,028	,002	,069	,087	,021	,416	,017	,017	,28

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COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)													CEV							
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn									
809																					
74269	,081	,822	,213	,018	,025	,002	,100	,097	,022	,449	,017	,023	,28								
74270	,084	,865	,206	,016	,021	,002	,104	,086	,020	,366	,015	,018	,28								
74271	,091	,822	,204	,023	,024	,003	,126	,098	,020	,458	,017	,018	,29								
74272	,083	,813	,205	,027	,027	,002	,136	,114	,022	,549	,017	,022	,29								
74273	,086	,884	,190	,017	,028	,003	,126	,067	,017	,316	,016	,017	,29								
74290	,101	,958	,217	,009	,018	,002	,057	,074	,020	,219	,018	,011	,30								
74291	,094	,940	,209	,011	,023	,003	,085	,081	,024	,246	,017	,020	,29								
74292	,096	,907	,223	,011	,018	,002	,080	,068	,019	,218	,016	,013	,29								
74294	,093	,898	,212	,012	,027	,002	,090	,079	,019	,256	,017	,013	,29								
74297	,094	,855	,197	,014	,020	,002	,086	,109	,027	,435	,019	,021	,30								
74298	,086	,805	,201	,012	,023	,002	,089	,118	,027	,417	,016	,017	,28								
74299	,085	,821	,211	,015	,030	,003	,091	,112	,025	,430	,016	,020	,28								
74300	,084	,794	,208	,015	,026	,002	,084	,122	,025	,504	,016	,021	,29								
74301	,089	,778	,197	,023	,026	,002	,095	,101	,023	,466	,016	,017	,28								
74302	,079	,818	,193	,025	,028	,003	,124	,114	,027	,526	,017	,024	,29								
74307	,094	,862	,230	,014	,014	,003	,110	,118	,025	,529	,016	,035	,31								
74309	,081	,851	,197	,014	,012	,002	,073	,096	,022	,399	,017	,018	,28								
74310	,091	,831	,208	,011	,019	,002	,076	,099	,021	,410	,017	,018	,28								
74311	,091	,840	,234	,013	,015	,003	,086	,108	,022	,410	,017	,017	,29								
74312	,086	,768	,227	,013	,017	,002	,125	,114	,023	,439	,018	,020	,28								
74313	,085	,808	,232	,018	,015	,002	,119	,104	,022	,456	,017	,021	,29								
74314	,081	,919	,194	,020	,025	,003	,118	,114	,024	,506	,015	,029	,30								

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES						A% LO=8"	
		ReH MPa		Rm MPa		A%			
811	808	C11		C12		C13			
W-21x68	74090	394	397	514	520	22,4	22,2		
W-21x68	74263	365	369	474	476	22,7	22,6		
W-21x68	74264	364	367	478	483	21,8	21,4		
W-21x68	74269	360	363	471	475	23,2	22,9		
W-21x68	74270	367	372	473	477	22,4	23,1		
W-21x68	74271	363	367	474	479	23,	22,6		
W-21x68	74272	365	369	472	475	24,1	23,9		
W-21x68	74273	353	358	470	475	25,2	24,8		
W-21x68	74290	372	375	484	488	20,7	20,4		
W-21x68	74291	368	372	479	484	21,5	21,2		
W-21x68	74292	358	360	475	479	23,8	23,7		
W-21x73	73724	365	367	474	477	22,3	22,1		
W-21x73	73725	374	377	484	487	21,8	21,7		
W-21x73	73726	358	363	471	475	22,3	22,1		
W-21x73	74307	363	367	474	477	21,2	21,1		
W-21x73	74309	359	363	472	475	23,2	23,		
W-21x73	74310	364	370	480	485	21,3	21,1		
W-21x73	74311	373	376	486	490	21,1	20,9		
W-21x73	74312	364	366	476	477	22,4	22,2		
W-21x73	74313	366	371	476	479	21,3	21,		
W-21x73	74314	362	367	473	476	22,5	22,4		
W-21x83	73272	375	378	493	496	21,3	21,2		

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MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		Rm MPa		A% LO=8"	
		B11	B08	C11	C12	C13	
W-21x83	73718	376	380	485	488	21,3	21,1
W-21x83	73722	376	382	482	487	22,4	22,1
W-21x83	73724	367	373	482	485	21,7	21,5
W-21x83	74290	377	381	497	501	20,6	20,4
W-21x83	74294	376	382	489	494	22,1	21,8
W-21x83	74297	376	379	484	486	22,7	22,5
W-21x83	74298	362	365	474	477	23,1	22,9
W-21x83	74299	368	370	477	482	22,2	21,9
W-21x83	74300	373	377	494	497	21,8	21,7
W-21x83	74301	384	388	491	496	21,5	21,4
W-21x83	74302	368	370	477	478	22,4	22,3

31 análisis

Z01

D01: Certificamos que los aceros arriba indicados han sido satisfactoriamente probados de acuerdo con la especificación.

B06: Marca APM

Carlos Alvarez