

A01

ArcelorMittal Gipuzkoa, S.L.U.
 Long Carbon Europe
 CARRETERA MADRID - IRUN, KM. 419
 20212 OLABERRIA (Guipúzcoa)
 TELEF. (943) 80.50.00 - FAX (943) 88.04.04



MILL TEST CERTIFICATE

OLA P-35573

DISCHARGE ADDRESS		CUSTOMER	
Abinsa S.A.de C.V. Ave. Adolfo Lopez Mateos K.M. 6.5 San Nicolas de Los Garza MEXICO		Abinsa S.A.de C.V. Ave. Adolfo Lopez Mateos K.M. 6.5 San Nicolas de Los Garza MEXICO	
SHIPPED AND CERTIFIED BY		CREDIT NUMBER	PORT OF LOADING
ARCELORMITTAL OLABERRIA CARRETERA MADRID - IRUN, KM. 419 20212 OLABERRIA (Guipúzcoa) TELEF. (943) 80.50.00 - FAX (943) 88.04.04			BILBAO, SPAIN
		PORT OF DISCHARGE	VESSEL
		ALTAMIRA	Beauforte
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
igomez	01-E-44149 / 1700016550	31759	31/05/2013

Material: WF Vigas,

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

ARCELORMITTAL GIPUZKOA, S.L.U. ES/20/0040/03

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
+/RED/YELLOW							
WF BEAMS 8x18	40'	17	14	238	4573	77.741	144469,144470
WF BEAMS 8x21	40'	7	12	84	4572	32.004	144438
WF BEAMS 8x24	40'	3	10	30	4355	13.065	144427,144430
WF BEAMS 8x28	40'	2	10	20	5080	10.160	144602
WF BEAMS 8x31	40'	2	8	16	4499	8.998	144580
WF BEAMS 8x35	40'	2	8	16	5081	10.162	144593
WF BEAMS 10x12	40'	2	18	36	3919	7.838	143430,143432,144739
WF BEAMS 10x12	40'	1	6	6	1306	1.306	143831
WF BEAMS 10x15	40'	3	18	54	4898	14.694	144280,144746,144747
WF BEAMS 10x17	40'	2	16	32	4935	9.870	144751
WF BEAMS 10x22	40'	5	12	60	4790	23.950	144784,144785
WF BEAMS 10x26	40'	3	10	30	4717	14.151	144756
WF BEAMS 10x26	40'	1	5	5	2359	2.359	144283
WF BEAMS 10x30	40'	2	8	16	4355	8.710	143469,144282
WF BEAMS 10x30	40'	1	3	3	1633	1.633	144281
WF BEAMS 10x33	40'	6	8	48	4790	28.740	143837,144715,144716
WF BEAMS 10x39	40'	2	8	16	5661	11.322	143832,144709
WF BEAMS 12x19	40'	1	12	12	4137	4.137	144264

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SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
WF BEAMS 12x19	40'	3	14	42	4827	14.481	144724
WF BEAMS 12x22	40'	2	12	24	4790	9.580	144743
WF BEAMS 12x26	40'	19	10	190	4717	89.623	144745,144746,144747
WF BEAMS 12x30	40'	5	8	40	4355	21.775	144736
WF BEAMS 12x35	40'	1	6	6	3810	3.810	144232
WF BEAMS 12x35	40'	3	8	24	5081	15.243	144733
WF BEAMS 12x40	40'	5	6	30	4355	21.775	144704,144705
WF BEAMS 12x45	40'	2	6	12	4899	9.798	144702
WF BEAMS 12x50	40'	2	6	12	5443	10.886	144690
WF BEAMS 14x22	40'	2	12	24	4790	9.580	144172,144713
WF BEAMS 14x26	40'	4	10	40	4717	18.868	144710,144711
WF BEAMS 14x30	40'	7	8	56	4355	30.485	144667,144668
WF BEAMS 14x34	40'	2	8	16	4935	9.870	144663
WF BEAMS 14x38	40'	2	6	12	4137	8.274	144658,144659
WF BEAMS 14x43	40'	4	6	24	4681	18.724	144632,144633
WF BEAMS 14x48	40'	3	6	18	5225	15.675	144629,144630
WF BEAMS 14x53	40'	5	6	30	5769	28.845	144627,144628
WF BEAMS 14x74	40'	4	3	12	4028	16.112	144543,144630
WF BEAMS 16x26	40'	4	6	24	2830	11.320	144140,144144,144151
WF BEAMS 16x36	40'	3	5	15	3266	9.798	144623
WF BEAMS 16x50	40'	2	5	10	4536	9.072	144613,144614
WF BEAMS 18x35	40'	10	6	60	3810	38.100	143904,144505,144506
WF BEAMS 18x50	40'	3	4	12	3629	10.887	144496
WF BEAMS 18x50	40'	1	2	2	1814	1.814	144047
WF BEAMS 18x50	40'	1	3	3	2722	2.722	143906
WF BEAMS 18x55	40'	3	4	12	3992	11.976	144494
WF BEAMS 18x65	40'	8	4	32	4717	37.736	144486
WF BEAMS 18x71	40'	3	4	12	5153	15.459	144475
WF BEAMS 18x76	40'	12	3	36	4137	49.644	144384,144385,144387,144388,144389
WF BEAMS 18x86	40'	3	2	6	3121	9.363	144393,144394
WF BEAMS 21x44	40'	5	5	25	3992	19.960	144508,144509
WF BEAMS 21x50	40'	3	5	15	4536	13.608	143939,144514
WF BEAMS 21x50	40'	1	2	2	1814	1.814	142700
WF BEAMS 21x50	40'	1	4	4	3629	3.629	143939
WF BEAMS 24x55	40'	4	5	20	4990	19.960	144520,144521
WF BEAMS 24x103	40'	4	2	8	3738	14.952	138919,144497

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SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
		TOTAL BUNDLES	208		TOTAL WEIGHT	916.058 Kg.	

A02 EN 10204/3.1

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

(B01/B02/B03) A03

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)																
	C	Mn	SI	P	S	V	Cr	NI	Mo	Cu	Nb	Sn	CEV				
138919	,099	1,160	,210	,026	,024	,044	,160	,170	,047	,440	,003	,036	,38				
142700	,065	1,030	,180	,017	,022	,035	,090	,180	,024	,400	,003	,033	,31				
143430	,095	1,000	,200	,036	,027	,040	,170	,440	,035	,450	,003	,035	,37				
143432	,094	1,020	,190	,023	,021	,036	,150	,250	,023	,420	,003	,035	,35				
143469	,068	1,030	,200	,015	,024	,040	,090	,180	,031	,340	,003	,020	,31				
143831	,067	1,030	,180	,027	,018	,039	,110	,170	,028	,360	,003	,034	,31				
143832	,075	1,020	,180	,020	,021	,037	,110	,180	,031	,330	,003	,029	,31				
143837	,104	1,010	,190	,031	,022	,035	,180	,180	,022	,380	,003	,039	,36				
143904	,079	1,010	,180	,020	,017	,035	,090	,120	,019	,380	,003	,045	,31				
143906	,072	1,010	,200	,023	,017	,037	,090	,150	,024	,370	,003	,044	,31				
143939	,081	1,060	,200	,030	,022	,041	,160	,200	,043	,470	,003	,047	,35				
144047	,082	,990	,190	,025	,018	,041	,250	,230	,044	,450	,003	,053	,36				
144140	,069	1,070	,200	,024	,029	,035	,170	,200	,056	,380	,005	,038	,34				
144144	,095	1,010	,190	,022	,027	,039	,150	,190	,048	,460	,003	,049	,35				
144151	,081	,990	,170	,022	,022	,033	,110	,230	,040	,430	,003	,046	,33				
144172	,098	1,020	,200	,017	,018	,036	,160	,270	,049	,480	,003	,033	,37				
144232	,076	1,010	,200	,034	,016	,040	,150	,270	,038	,490	,003	,045	,34				
144264	,086	1,020	,170	,019	,036	,043	,120	,160	,023	,380	,003	,029	,33				
144280	,076	1,040	,180	,020	,017	,040	,110	,220	,036	,480	,003	,032	,33				
144281	,090	1,060	,190	,023	,012	,041	,130	,180	,032	,450	,003	,035	,35				
144282	,087	1,090	,190	,026	,016	,040	,130	,180	,032	,430	,003	,038	,35				
144283	,088	1,080	,200	,026	,014	,042	,150	,180	,029	,420	,003	,040	,35				
144384	,075	,980	,190	,016	,017	,038	,130	,190	,038	,300	,003	,018	,31				
144385	,081	1,050	,170	,021	,019	,036	,150	,190	,037	,370	,003	,019	,34				
144387	,080	1,000	,170	,015	,020	,036	,110	,220	,036	,300	,003	,020	,32				
144388	,077	1,000	,170	,016	,020	,035	,140	,200	,035	,320	,003	,026	,32				
144389	,078	,980	,200	,021	,018	,034	,150	,180	,035	,310	,003	,021	,32				
144393	,080	1,030	,160	,015	,014	,036	,120	,180	,026	,360	,003	,018	,32				
144394	,086	1,000	,160	,013	,018	,041	,120	,180	,025	,350	,003	,015	,33				
144427	,081	1,020	,190	,021	,021	,036	,170	,190	,035	,340	,003	,021	,33				
144430	,065	1,030	,160	,021	,023	,036	,150	,170	,032	,380	,003	,019	,32				
144438	,087	1,020	,180	,023	,019	,033	,120	,150	,019	,360	,003	,027	,33				
144469	,125	,980	,210	,031	,030	,035	,200	,190	,033	,450	,003	,045	,38				
144470	,130	,940	,180	,026	,024	,037	,190	,150	,036	,520	,001	,034	,38				
144475	,091	,950	,190	,027	,014	,038	,170	,150	,030	,420	,003	,045	,33				
144486	,077	1,000	,190	,019	,019	,032	,130	,210	,036	,480	,003	,048	,33				
144494	,101	1,010	,170	,023	,019	,040	,150	,190	,031	,520	,003	,046	,36				
144496	,080	1,050	,180	,025	,017	,035	,180	,180	,035	,460	,003	,045	,35				
144497	,079	,990	,190	,027	,015	,038	,190	,160	,028	,410	,003	,046	,33				
144505	,073	1,000	,200	,019	,024	,038	,100	,220	,024	,350	,003	,042	,31				
144506	,084	1,000	,190	,019	,015	,039	,100	,200	,030	,380	,003	,037	,32				
144508	,075	,990	,210	,016	,015	,038	,100	,240	,041	,360	,003	,036	,32				

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COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)																		
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn	CEV						
144509	,080	,960	,220	,017	,019	,036	,090	,180	,031	,390	,003	,039	,31						
144514	,094	1,000	,190	,018	,022	,033	,100	,190	,022	,440	,009	,041	,33						
144520	,081	1,350	,240	,020	,019	,036	,100	,180	,029	,400	,011	,047	,38						
144521	,069	1,020	,210	,021	,024	,037	,110	,180	,029	,420	,007	,043	,31						
144543	,094	1,000	,180	,029	,025	,041	,120	,160	,022	,370	,003	,039	,33						
144580	,085	1,020	,180	,022	,019	,032	,120	,210	,030	,410	,003	,048	,33						
144593	,081	1,010	,170	,017	,020	,034	,130	,170	,033	,360	,003	,042	,32						
144602	,098	1,020	,180	,020	,017	,036	,100	,200	,032	,320	,003	,052	,34						
144613	,109	,980	,200	,027	,019	,034	,150	,210	,033	,370	,003	,054	,35						
144614	,090	,990	,200	,033	,018	,036	,150	,200	,025	,410	,003	,044	,34						
144623	,068	1,020	,180	,020	,024	,036	,120	,180	,022	,360	,003	,040	,31						
144627	,106	,970	,190	,026	,013	,037	,140	,200	,027	,340	,003	,045	,34						
144628	,097	1,000	,210	,026	,020	,035	,140	,190	,023	,330	,003	,042	,34						
144629	,090	1,010	,180	,028	,013	,032	,130	,190	,021	,340	,007	,044	,33						
144630	,074	1,000	,190	,037	,018	,034	,150	,200	,026	,420	,003	,051	,32						
144632	,093	1,010	,190	,026	,020	,035	,100	,190	,024	,390	,003	,055	,33						
144633	,097	1,040	,190	,023	,015	,034	,120	,210	,030	,480	,003	,054	,35						
144658	,106	1,030	,190	,024	,014	,037	,140	,190	,022	,370	,008	,048	,35						
144659	,087	1,010	,160	,022	,017	,038	,110	,200	,021	,380	,009	,049	,33						
144663	,059	,980	,200	,027	,022	,038	,150	,200	,031	,380	,003	,048	,30						
144667	,079	1,040	,190	,022	,022	,038	,180	,200	,024	,420	,003	,058	,34						
144668	,115	,980	,170	,034	,010	,036	,240	,210	,023	,400	,003	,051	,38						
144690	,081	,970	,200	,027	,024	,037	,140	,140	,018	,360	,003	,044	,32						
144702	,131	1,130	,170	,030	,020	,033	,200	,160	,032	,420	,007	,047	,41						
144704	,118	,990	,170	,019	,008	,039	,170	,310	,043	,300	,003	,029	,37						
144705	,083	1,000	,200	,021	,019	,039	,120	,210	,026	,310	,003	,042	,32						
144709	,081	1,000	,200	,025	,015	,036	,150	,180	,029	,330	,003	,031	,32						
144710	,065	1,010	,210	,034	,017	,035	,160	,160	,026	,370	,003	,034	,31						
144711	,075	,970	,210	,025	,013	,036	,140	,180	,031	,400	,003	,043	,32						
144713	,080	,970	,200	,024	,020	,036	,130	,170	,027	,370	,003	,039	,32						
144715	,092	1,010	,210	,034	,019	,037	,310	,260	,045	,420	,003	,048	,38						
144716	,078	1,070	,200	,032	,020	,046	,270	,270	,043	,470	,003	,038	,38						
144724	,089	1,000	,210	,025	,013	,036	,180	,190	,036	,380	,003	,036	,34						
144733	,092	1,000	,190	,025	,020	,032	,130	,170	,021	,380	,003	,045	,33						
144736	,086	1,020	,180	,016	,020	,034	,130	,200	,024	,360	,003	,047	,33						
144739	,090	1,040	,190	,030	,018	,035	,170	,190	,027	,320	,003	,049	,34						
144743	,144	1,220	,180	,026	,008	,041	,180	,170	,033	,380	,003	,038	,43						
144745	,099	1,190	,200	,024	,020	,038	,160	,190	,039	,380	,003	,041	,38						
144746	,094	1,480	,210	,032	,019	,046	,220	,160	,025	,420	,003	,043	,44						
144747	,073	1,030	,190	,017	,016	,036	,130	,190	,032	,420	,003	,049	,32						
144751	,069	1,040	,180	,022	,020	,039	,140	,160	,031	,380	,003	,035	,32						
144756	,101	,990	,190	,025	,018	,036	,140	,180	,028	,340	,003	,045	,34						
144784	,091	,980	,190	,015	,020	,034	,090	,150	,029	,330	,003	,033	,32						
144785	,096	1,000	,190	,016	,018	,032	,090	,160	,025	,320	,003	,033	,32						
MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES																	
		ReH MPa	Rm MPa	A% LO=8"															
B11	B08	C11	C12	C13															

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MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		Rm MPa		A% LO=8"	
B11	B00	D11		D17		D13	
W-10x12	143430	392	377	556	554	22,8	22,4
W-10x12	143432	403	387	545	543	22,5	22,4
W-10x12	143831	440	429	551	539	23,4	23,
W-10x12	144739	416	414	548	524	23,2	22,6
W-10x15	144280	431	417	549	549	22,3	21,8
W-10x15	144746	395	381	536	514	25,4	24,5
W-10x15	144747	435	429	578	570	22,6	21,8
W-10x17	144751	416	404	540	540	22,4	21,9
W-10x22	144784	397	389	518	516	22,6	21,9
W-10x22	144785	407	393	534	522	23,	23,
W-10x26	144283	423	411	550	541	22,5	21,7
W-10x26	144756	401	398	536	521	22,	22,
W-10x30	143469	386	372	503	493	24,9	24,5
W-10x30	144281	410	400	543	533	23,	22,9
W-10x30	144282	409	402	542	526	24,1	23,6
W-10x33	143837	443	425	585	574	22,8	22,4
W-10x33	144715	398	405	513	512	22,2	22,8
W-10x33	144716	409	405	552	543	22,7	22,2
W-10x39	143832	387	381	524	514	25,2	24,3
W-10x39	144709	405	397	525	522	22,9	22,6
W-12x19	144264	396	394	537	523	23,2	22,3
W-12x19	144724	434	418	559	559	22,5	22,2
W-12x22	144743	429	425	555	535	23,7	23,3
W-12x26	144745	400	390	627	617	22,4	21,7
W-12x26	144746	422	411	560	542	22,2	21,7
W-12x26	144747	402	388	621	613	22,2	22,1
W-12x30	144736	398	395	534	521	23,2	22,6
W-12x35	144232	415	409	547	523	23,	22,2
W-12x35	144733	402	388	532	518	24,3	23,8
W-12x40	144704	404	390	529	515	23,6	23,2
W-12x40	144705	410	400	556	542	22,6	22,4
W-12x45	144702	411	393	544	528	23,8	23,5
W-12x50	144690	408	401	581	561	24,	23,9
W-14x22	144172	429	420	565	554	22,2	21,8
W-14x22	144713	450	442	563	557	22,2	22,
W-14x26	144710	403	395	530	526	23,2	23,1
W-14x26	144711	424	414	534	521	23,1	23,7
W-14x30	144667	408	399	540	529	22,6	22,2
W-14x30	144668	424	420	565	561	22,4	21,9
W-14x34	144663	413	399	523	509	22,5	21,8
W-14x38	144658	404	400	542	526	22,8	22,1
W-14x38	144659	403	391	534	511	24,4	23,6
W-14x43	144632	396	385	530	516	24,5	24,1
W-14x43	144633	399	389	525	521	22,7	22,1
W-14x48	144629	390	386	517	513	22,6	22,3
W-14x48	144630	388	382	516	506	22,6	22,6
W-14x53	144627	394	390	533	511	24,6	24,1
W-14x53	144628	402	392	527	517	24,6	24,4

A01

ArcelorMittal Gipuzkoa, S.L.U.
 Long Carbon Europe
 CARRETERA MADRID - IRUN, KM. 419
 20212 OLABERRIA (Guipúzcoa)
 TELEF. (943) 80.50.00 - FAX (943) 88.04.04



MILL TEST CERTIFICATE

OLA P-35573

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		Rm MPa		A% L0=8"	
D11	D09	D11		D12		D13	
W-14x74	144543	395	385	525	503	23,2	22,4
W-14x74	144630	391	392	528	495	23,3	23,6
W-16x26	144140	424	414	549	545	22,5	22,2
W-16x26	144144	420	418	575	559	23,1	22,6
W-16x26	144151	432	414	561	561	22,2	22,1
W-16x36	144623	410	404	518	509	22,9	22,7
W-18x50	144613	413	407	549	536	22,2	22,
W-16x50	144614	428	416	558	538	23,	22,7
W-18x35	143904	407	389	527	511	23,3	23,
W-18x35	144505	423	416	520	502	22,4	22,3
W-18x35	144506	405	390	517	509	24,6	23,8
W-18x50	143906	420	414	551	534	25,7	25,3
W-18x50	144047	430	421	546	537	22,4	22,1
W-18x50	144496	412	407	535	532	22,1	21,8
W-18x55	144494	438	422	578	563	24,5	24,3
W-18x65	144486	418	405	546	536	22,8	21,9
W-18x71	144475	415	403	536	532	22,6	22,1
W-18x76	144384	389	385	498	496	26,5	25,9
W-18x76	144385	390	374	509	505	24,	23,4
W-18x76	144387	374	365	497	482	26,1	25,6
W-18x76	144388	374	364	494	474	23,9	23,2
W-18x76	144389	363	362	488	482	23,2	22,4
W-18x86	144393	375	369	511	502	23,5	22,9
W-18x86	144394	391	377	504	484	23,6	23,
W-21x44	144508	409	405	521	511	25,7	24,7
W-21x44	144509	409	403	530	509	24,8	24,3
W-21x50	142700	381	373	491	475	23,5	23,1
W-21x50	143939	423	423	563	539	22,7	22,1
W-21x50	144514	397	381	514	508	22,7	22,6
W-24x103	138919	413	403	543	535	22,3	22,
W-24x103	144497	424	408	536	530	23,4	22,7
W-24x55	144520	420	416	562	554	23,2	22,9
W-24x55	144521	405	397	505	505	22,2	22,1
W-8x18	144469	408	404	545	526	28,9	28,8
W-8x18	144470	436	434	590	569	22,4	22,1
W-8x21	144438	392	389	515	503	22,4	21,9
W-8x24	144427	409	395	523	523	22,3	22,
W-8x24	144430	406	397	521	511	22,2	22,1
W-8x28	144602	400	388	524	508	25,6	25,2
W-8x31	144580	420	407	520	515	22,6	21,9
W-8x35	144593	387	380	517	508	22,9	22,3

86 análisis

Z01

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

B06: Marca AMO

Lorenzo Zabala