

MILL TEST CERTIFICATE

OLA P-29093

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		Salzgitter Mannesmann Intern. GmbH SCHWANNSTRASSE, 12 DUESSELDORF ALEMANIA	
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
		VERACRUZ	ADRIATICBORG
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
mcabello	01-E-39574 / 1700013463	315/10465 - LOT 3	18/11/2011

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							
WF BEAMS 10x12	40'	1	12	12	2613	2.613	133844
WF BEAMS 10x12	40'	15	18	270	3919	58.785	134962,134963,134965,134967,134970
WF BEAMS 10x22	40'	10	12	120	4790	47.900	131942,133844,134993,134994
WF BEAMS 10x22	40'	1	3	3	1197	1.197	133844
WF BEAMS 12x14	40'	13	18	234	4571	59.423	134785,134787,134788,134795
WF BEAMS 12x19	40'	1	5	5	1724	1.724	133964
WF BEAMS 12x19	40'	10	14	140	4827	48.270	134801,134802
WF BEAMS 12x22	40'	13	12	156	4790	62.270	133963,135103,135104,135105,135106,135109,135110,135111,135117
WF BEAMS 12x50	40'	11	6	66	5443	59.873	134973,134974,134975
WF BEAMS 14x43	40'	12	6	72	4681	56.172	131762,134893,134894,134895,134896
WF BEAMS 14x43	40'	1	3	3	2340	2.340	131762
WF BEAMS 16x50	40'	1	2	2	1814	1.814	133425
WF BEAMS 18x50	40'	17	4	68	3629	61.693	133277,135120,135121,135123,135185
WF BEAMS 18x60	40'	8	4	32	4354	34.832	134122,135108,135182
WF BEAMS 18x60	40'	1	3	3	3266	3.266	134122

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SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
WF BEAMS 21x83	40'	3	3	9	4518	13.554	134801

TOTAL BUNDLES **118**

TOTAL WEIGHT **515.726 Kg.**

A02 EN 10204/3.1

ASTM A36 - A572 G50/A6

(B01/B02/B03) A03

COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)												
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn	CEV
B03													
131762	,090	1,340	,200	,021	,012	,002	,190	,220	,038	,470	,018	,042	,41
131942	,108	1,260	,190	,016	,021	,001	,120	,190	,039	,450	,029	,029	,39
133277	,098	1,200	,190	,017	,030	,040	,150	,240	,049	,440	,004	,034	,39
133425	,104	1,080	,210	,026	,025	,048	,140	,180	,031	,410	,003	,049	,37
133844	,085	1,160	,200	,022	,023	,039	,120	,140	,025	,360	,004	,027	,35
133963	,100	1,260	,190	,015	,033	,001	,100	,150	,023	,440	,023	,044	,37
133964	,110	1,280	,190	,018	,016	,001	,090	,160	,021	,440	,024	,052	,39
134122	,087	1,120	,190	,017	,031	,039	,130	,240	,041	,430	,005	,047	,36
134785	,095	1,160	,200	,017	,018	,036	,110	,180	,026	,390	,014	,047	,36
134787	,119	1,160	,200	,040	,017	,046	,170	,180	,025	,420	,005	,048	,40
134788	,100	1,240	,200	,042	,006	,050	,200	,180	,034	,430	,011	,043	,40
134795	,102	1,120	,210	,023	,015	,045	,130	,190	,041	,340	,003	,042	,37
134801	,109	1,230	,190	,023	,027	,043	,160	,200	,035	,420	,004	,040	,40
134802	,123	1,160	,210	,028	,018	,037	,170	,180	,024	,400	,005	,037	,40
134893	,083	1,170	,190	,015	,012	,039	,100	,170	,028	,320	,008	,040	,34
134894	,092	1,120	,190	,019	,019	,033	,100	,190	,030	,350	,007	,038	,35
134895	,095	1,170	,180	,032	,028	,039	,160	,180	,032	,410	,003	,047	,38
134962	,099	1,160	,190	,024	,031	,042	,130	,170	,030	,370	,009	,041	,37
134963	,097	1,120	,180	,026	,023	,047	,110	,170	,024	,380	,013	,040	,36
134965	,086	1,130	,190	,024	,021	,040	,180	,200	,028	,430	,007	,038	,37
134967	,093	1,160	,190	,026	,015	,040	,170	,160	,029	,390	,007	,045	,37
134970	,089	1,160	,200	,019	,034	,043	,110	,160	,022	,340	,007	,044	,35
134973	,098	1,310	,180	,021	,020	,034	,220	,320	,027	,340	,011	,046	,42
134974	,096	1,100	,170	,021	,032	,036	,120	,230	,025	,340	,003	,048	,35
134975	,115	1,070	,170	,022	,013	,039	,160	,250	,038	,400	,003	,046	,38
134993	,073	1,120	,190	,028	,027	,039	,150	,170	,024	,340	,004	,036	,34
134994	,109	1,170	,200	,027	,020	,042	,140	,210	,023	,410	,006	,044	,39
135103	,102	1,250	,200	,019	,020	,001	,130	,170	,036	,380	,022	,040	,38
135104	,090	1,260	,190	,023	,024	,001	,120	,170	,029	,380	,024	,042	,37
135105	,132	1,340	,220	,023	,013	,001	,150	,160	,029	,410	,025	,038	,43
135106	,122	1,300	,200	,033	,015	,001	,160	,160	,028	,400	,021	,044	,41
135108	,100	1,320	,240	,021	,029	,001	,120	,160	,034	,380	,015	,037	,39
135109	,098	1,230	,210	,025	,027	,001	,160	,200	,036	,360	,023	,049	,38
135110	,099	1,250	,200	,019	,033	,001	,100	,200	,037	,360	,028	,041	,37
135111	,101	1,180	,200	,024	,029	,002	,150	,240	,041	,390	,028	,041	,38
135117	,122	1,270	,200	,028	,016	,001	,150	,170	,022	,410	,026	,049	,41
135120	,105	1,350	,240	,028	,036	,001	,140	,190	,021	,390	,018	,045	,40
135121	,110	1,290	,230	,032	,022	,001	,140	,190	,023	,430	,023	,044	,40
135123	,140	1,290	,240	,020	,022	,001	,130	,170	,022	,400	,017	,034	,42
135182	,113	1,150	,220	,023	,013	,048	,180	,220	,027	,400	,003	,042	,40
135185	,098	1,110	,220	,024	,022	,039	,140	,190	,034	,430	,003	,041	,37

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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-10x12	133844	394	378	523	505	23,5	22,6
W-10x12	134962	413	411	545	532	22,4	21,9
W-10x12	134963	418	412	603	581	22,5	21,8
W-10x12	134965	414	418	603	579	22,5	22,1
W-10x12	134967	412	416	602	580	22,4	22,2
W-10x12	134970	408	398	565	561	22,3	22,
W-10x22	131942	386	384	587	567	22,5	22,4
W-10x22	133844	401	389	533	514	22,6	21,8
W-10x22	134993	443	434	565	563	22,5	21,8
W-10x22	134994	402	396	554	543	22,4	21,9
W-12x14	134785	396	396	555	555	22,2	22,2
W-12x14	134787	391	391	540	540	26,	26,
W-12x14	134788	395	395	594	594	22,3	22,3
W-12x14	134795	384	384	548	548	22,3	22,3
W-12x19	133964	384	380	576	556	22,2	21,5
W-12x19	134801	419	409	548	540	22,7	22,4
W-12x19	134802	416	404	544	533	23,	22,8
W-12x22	133963	386	380	564	564	22,5	22,1
W-12x22	135103	404	389	544	528	22,3	22,2
W-12x22	135104	398	386	578	560	22,2	21,9
W-12x22	135105	393	385	542	536	23,3	22,5
W-12x22	135106	405	391	552	536	22,9	22,2
W-12x22	135109	393	383	529	519	22,1	22,
W-12x22	135110	390	382	574	570	22,2	22,
W-12x22	135111	394	392	547	541	22,5	22,5
W-12x22	135117	397	385	535	511	22,5	21,7
W-12x50	134973	427	411	574	560	22,5	21,8
W-12x50	134974	418	414	553	535	22,2	22,
W-12x50	134975	413	396	546	544	22,2	21,9
W-14x43	131762	381	369	578	558	21,7	21,
W-14x43	134893	388	384	507	501	24,8	24,1
W-14x43	134894	395	381	510	510	24,8	24,3
W-14x43	134895	385	388	503	502	25,1	24,9
W-16x50	133425	427	417	539	537	22,3	22,2
W-18x50	133277	387	371	572	566	23,	22,5
W-18x50	135120	406	398	530	516	22,7	22,
W-18x50	135121	398	391	510	502	22,1	21,9
W-18x50	135123	394	380	554	543	22,7	22,2
W-18x50	135185	394	388	505	505	22,5	22,
W-18x60	134122	398	386	527	509	22,4	21,8
W-18x60	135108	404	398	539	517	22,3	22,1
W-18x60	135182	400	398	531	509	22,4	21,8
W-21x83	134801	396	384	522	512	22,4	21,6

41 análisis

Z01

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

B06: Marca AMO

AMAL

Ángel Martínez de Treviño