

Arcelor Olaberria, S.L.
Long Carbon Steel Europe

Sections

CARRETERA MADRID - IRUN, KM. 419
20212 OLABERRIA (Guipúzcoa)
TELEF. (943) 80.50.00 - FAX (943) 88.04.04



QUALITY CERTIFICATE

APS P-6867

DISCHARGE ADDRESS		CUSTOMER	
PLESA ANAHUAC Y CIAS, S.A.DE C.V. AV VALLE DE LAS ALAMEDAS 66-O COL.SAN FRANCISCO CHILPAN 54940,TULTITLAN EDO.DE MEXICO		PLESA ANAHUAC Y CIAS, S.A.DE C.V. AV VALLE DE LAS ALAMEDAS 66-O COL.SAN FRANCISCO CHILPAN 54940,TULTITLAN EDO.DE MEXICO	
SHIPPED AND CERTIFIED BY		CREDIT NUMBER	PORT OF LOADING
ARCELOR OLABERRIA, S.L. CARRETERA MADRID - IRUN, KM. 419 20212 OLABERRIA (Guipúzcoa) TELEF. (943) 80.50.00 - FAX (943) 88.04.04			PASAJES, SPAIN
		PORT OF DISCHARGE	VESSEL
		VERACRUZ (MEXICO)	KEN RYU
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
mgonzalez	E-16277 Lot: 1	OC.456	31/03/2006

Material: WF Vigas, calidad ASTM A-992

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

ARCELOR PERFILES OLABERRIA S.L. 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
/ AMARILLO							
WF BEAMS 8x18	40'	11	14	154	4573	50.303	101699,101701,101702
WF BEAMS 10x12	40'	16	20	320	4355	69.680	101638,101639,101640,101641,101643,101700,101701,101702,101703
WF BEAMS 10x15	40'	10	18	180	4898	48.980	101567,101568,101569,101570,101584
WF BEAMS 10x22	40'	18	12	216	4790	86.220	101430,101431,101432,101433
WF BEAMS 12x14	40'	11	18	198	4571	50.281	101490,101492,101493,101494,101495
WF BEAMS 12x19	40'	11	14	154	4827	53.097	101448,101449,101450,101451,101452,101455,101456,101457
WF BEAMS 12x30	40'	20	8	160	4355	87.100	101642,101645,101649,101650
WF BEAMS 12x40	40'	12	6	72	4355	52.260	101558,101560,101561,101562
WF BEAMS 14x34	40'	17	8	136	4935	83.895	101578,101597
WF BEAMS 14x38	40'	21	6	126	4137	86.877	101576,101577,101598
WF BEAMS 16x40	40'	23	5	115	3629	83.467	101671,101672,101673,101674
WF BEAMS 16x50	40'	15	5	75	4536	68.040	100164,101661,101662,101664
WF BEAMS 18x55	40'	3	4	12	3992	11.976	56250,56253

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SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
WF BEAMS 18x71	40'	1	4	4	5153	5.153	44812
WF BEAMS 18x35	40'	20	6	120	3810	76.200	101460,101485,101486

TOTAL BUNDLES 209 TOTAL WEIGHT 913.529 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 (%)													CEV								
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn										
44812	,109	1,130	,170	,014	,023	,002	,120	,120	,014	,560	,024	,035	,37									
56250	,090	1,200	,180	,016	,031	,002	,130	,160	,032	,460	,021	,031	,36									
56253	,100	1,230	,220	,018	,026	,003	,140	,200	,036	,430	,022	,029	,38									
100164	,100	1,220	,180	,021	,021	,003	,110	,170	,037	,500	,020	,021	,38									
101430	,080	1,200	,210	,024	,030	,002	,160	,150	,029	,490	,020	,015	,36									
101431	,100	1,210	,190	,018	,014	,003	,100	,160	,029	,520	,023	,016	,37									
101432	,080	1,240	,190	,018	,021	,003	,100	,150	,025	,450	,022	,016	,35									
101433	,080	1,220	,200	,017	,025	,003	,100	,170	,031	,490	,022	,018	,35									
101448	,090	1,360	,180	,021	,020	,003	,100	,170	,032	,450	,021	,016	,39									
101449	,080	1,440	,160	,021	,031	,004	,120	,170	,029	,480	,028	,021	,39									
101450	,090	1,230	,220	,023	,028	,003	,130	,190	,039	,530	,024	,019	,38									
101451	,100	1,240	,210	,023	,025	,004	,140	,190	,036	,500	,021	,019	,39									
101452	,100	1,240	,210	,021	,022	,003	,130	,180	,032	,510	,020	,019	,39									
101455	,100	1,250	,210	,034	,017	,003	,290	,220	,036	,510	,018	,018	,42									
101456	,100	1,240	,220	,033	,012	,004	,310	,190	,027	,540	,019	,015	,42									
101457	,100	1,300	,200	,027	,025	,007	,250	,210	,032	,530	,022	,016	,42									
101460	,090	1,180	,210	,030	,026	,004	,210	,160	,024	,470	,023	,021	,38									
101485	,100	1,260	,240	,027	,014	,003	,170	,150	,020	,510	,021	,042	,39									
101486	,080	1,170	,200	,021	,016	,003	,150	,160	,023	,490	,022	,032	,35									
101490	,110	1,210	,170	,023	,015	,003	,140	,150	,021	,450	,022	,035	,38									
101492	,110	1,330	,190	,018	,023	,003	,120	,170	,025	,450	,023	,020	,40									
101493	,100	1,280	,190	,023	,024	,003	,140	,180	,023	,490	,027	,025	,39									
101494	,090	1,230	,150	,026	,033	,003	,140	,160	,021	,500	,022	,038	,37									
101495	,120	1,300	,190	,024	,024	,003	,140	,180	,020	,520	,024	,038	,42									
101558	,090	1,240	,230	,023	,022	,003	,160	,170	,036	,490	,023	,021	,38									
101560	,090	1,180	,190	,019	,013	,003	,140	,140	,030	,490	,023	,020	,36									
101561	,090	1,160	,200	,014	,013	,003	,100	,140	,027	,410	,021	,019	,35									
101562	,090	1,150	,180	,013	,012	,002	,090	,130	,028	,350	,021	,019	,34									
101567	,110	1,240	,220	,015	,011	,002	,100	,110	,016	,390	,024	,020	,37									
101568	,120	1,200	,180	,013	,013	,002	,100	,100	,014	,370	,021	,016	,37									
101569	,110	1,130	,190	,013	,013	,002	,120	,170	,031	,370	,020	,016	,36									
101570	,090	1,180	,170	,023	,027	,005	,170	,230	,038	,410	,021	,017	,37									
101576	,080	1,220	,210	,029	,024	,003	,160	,190	,034	,520	,021	,023	,37									
101577	,090	1,230	,200	,029	,020	,003	,170	,180	,034	,580	,020	,022	,39									
101578	,080	1,160	,200	,023	,022	,003	,130	,200	,036	,580	,019	,021	,36									
101584	,110	1,210	,200	,023	,019	,004	,160	,190	,034	,450	,022	,023	,39									
101597	,090	1,190	,220	,019	,013	,003	,150	,180	,032	,490	,020	,018	,37									
101598	,090	1,190	,230	,021	,019	,003	,160	,170	,031	,470	,024	,016	,37									
101638	,100	1,200	,200	,020	,027	,002	,100	,140	,024	,470	,021	,025	,37									
101639	,100	1,170	,180	,017	,029	,002	,090	,140	,024	,460	,021	,022	,36									

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COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)																				
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn	CEV								
101640	,100	1,330	,190	,023	,023	,003	,100	,150	,029	,490	,024	,025	,39								
101641	,090	1,220	,170	,020	,025	,003	,100	,130	,028	,480	,021	,017	,36								
101642	,090	1,210	,190	,018	,023	,003	,100	,140	,029	,450	,023	,020	,36								
101643	,100	1,200	,240	,017	,014	,003	,110	,130	,019	,470	,024	,044	,37								
101645	,100	1,190	,230	,025	,018	,003	,170	,140	,022	,480	,023	,019	,38								
101649	,100	1,190	,190	,025	,020	,003	,150	,140	,022	,450	,023	,019	,37								
101650	,100	1,170	,190	,024	,022	,003	,130	,150	,024	,460	,022	,023	,37								
101661	,090	1,140	,190	,020	,022	,002	,180	,150	,026	,460	,025	,061	,36								
101662	,120	1,330	,200	,023	,013	,002	,200	,150	,024	,460	,022	,067	,43								
101664	,120	1,220	,200	,018	,011	,002	,170	,140	,023	,450	,017	,057	,40								
101671	,100	1,150	,190	,028	,017	,003	,180	,140	,022	,520	,017	,036	,38								
101672	,100	1,170	,190	,029	,015	,003	,170	,160	,021	,510	,018	,019	,38								
101673	,100	1,230	,180	,020	,022	,002	,150	,170	,026	,500	,019	,016	,39								
101674	,110	1,250	,170	,027	,019	,003	,170	,160	,023	,470	,020	,017	,40								
101699	,100	1,140	,150	,032	,020	,003	,150	,140	,022	,520	,020	,017	,37								
101700	,100	1,200	,180	,033	,016	,002	,160	,140	,022	,500	,021	,018	,38								
101701	,120	1,240	,200	,026	,019	,003	,160	,150	,023	,520	,022	,020	,41								
101702	,110	1,190	,170	,026	,021	,003	,150	,140	,021	,510	,022	,025	,39								
101703	,120	1,180	,170	,019	,018	,003	,120	,130	,019	,530	,020	,023	,39								

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		Rm MPa		A% L0=2"	
B11	B0E	C11		C12		C13	
W-10x12	101638	426	416	543	539	30,7	29,9
W-10x12	101639	436	420	543	542	29,9	29,3
W-10x12	101640	415	411	547	543	24,4	24,3
W-10x12	101641	415	399	550	542	32,3	31,8
W-10x12	101643	440	424	543	555	30,1	29,2
W-10x12	101700	375	372	497	489	29,5	29,
W-10x12	101701	393	390	550	549	29,7	28,8
W-10x12	101702	403	393	547	546	30,5	30,3
W-10x12	101703	374	372	548	547	29,4	28,9
W-10x15	101567	376	373	538	558	30,9	29,9
W-10x15	101568	381	373	548	540	29,3	29,
W-10x15	101569	418	402	547	538	32,4	32,3
W-10x15	101570	396	386	548	532	30,1	29,7
W-10x15	101584	372	358	542	551	29,4	28,3
W-10x22	101430	373	365	534	532	27,7	27,
W-10x22	101431	382	368	550	534	28,	27,5
W-10x22	101432	368	355	535	527	30,1	29,8
W-10x22	101433	362	356	544	542	28,3	27,5
W-12x14	101490	396	385	543	543	27,5	27,1
W-12x14	101492	376	368	547	540	31,6	31,
W-12x14	101493	387	373	541	558	28,8	28,7
W-12x14	101494	387	371	549	532	30,3	29,3
W-12x14	101495	383	373	547	553	30,3	29,4
W-12x19	101448	378	366	549	538	28,8	27,9
W-12x19	101449	390	376	544	548	30,3	29,2

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MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		Rm MPa		A% L0=2"	
B01	B06	C11		C12		C13	
W-12x19	101450	367	359	547	539	30,9	29,8
W-12x19	101451	368	364	539	553	31,1	30,3
W-12x19	101452	369	367	543	534	31,3	30,7
W-12x19	101455	391	375	548	533	27,2	26,7
W-12x19	101456	384	370	548	549	29,2	28,7
W-12x19	101457	389	377	542	533	30,8	30,
W-12x30	101642	365	365	548	544	29,3	28,5
W-12x30	101645	448	434	548	545	25,4	24,5
W-12x30	101649	367	363	545	537	29,7	29,7
W-12x30	101650	380	376	543	557	27,6	26,8
W-12x40	101558	407	393	544	528	28,7	28,6
W-12x40	101560	393	377	549	531	24,4	23,7
W-12x40	101561	386	382	548	545	27,2	26,5
W-12x40	101562	413	407	542	544	23,1	23,
W-14x34	101578	367	363	545	549	27,9	27,7
W-14x34	101597	385	385	542	532	27,4	26,4
W-14x38	101576	392	384	545	545	27,2	27,
W-14x38	101577	362	358	538	554	28,9	28,4
W-14x38	101598	369	365	518	506	37,3	36,1
W-16x40	101671	366	364	535	534	28,6	27,9
W-16x40	101672	365	355	541	535	29,	28,6
W-16x40	101673	368	368	541	538	27,9	27,8
W-16x40	101674	393	385	540	559	31,4	30,7
W-16x50	100164	382	378	546	546	28,7	28,7
W-16x50	101661	450	446	547	538	24,5	24,3
W-16x50	101662	393	385	547	548	27,6	26,7
W-16x50	101664	383	377	549	547	29,1	29,1
W-18x35	101460	372	362	549	525	29,8	28,8
W-18x35	101485	385	371	545	543	31,4	30,9
W-18x35	101486	404	396	545	536	27,8	27,6
W-18x55	56250	396	384	530	526	32,6	31,5
W-18x55	56253	399	397	540	539	28,	27,7
W-18x71	44812	382	380	538	534	30,6	30,4
W-8x18	101699	415	413	543	546	30,	29,7
W-8x18	101701	393	380	546	538	27,8	27,6
W-8x18	101702	404	402	547	549	27,1	26,9

59 análisis

D01: Certificamos que los aceros arriba indicados han sido satisfactoriamente probados de acuerdo con la especificación.
B06: Marca APO

Z01

Luis María Lakunza