

A01
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-9038

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			BILBAO, SPAIN
		PORT OF DISCHARGE	VESSEL
		VERACRUZ (MEXICO)	CARINA
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
igomez	E-19164 Lot: 1	O.C.2156	31/12/2006

Material: WF Vigas, calidad ASTM A-992.

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

ARCELOR 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
PLESA / VERACRUZ + // ROJOS							
WF BEAMS 8x18	40'	13	14	182	4573	59.449	106768,106769,106770
WF BEAMS 8x21	40'	13	12	156	4572	59.436	106771,106772,106773,106774
WF BEAMS 12x30	40'	28	8	224	4355	121.940	105388,105392,106855,106856
WF BEAMS 14x34	40'	12	8	96	4935	59.220	105333,105339,107141
WF BEAMS 16x40	40'	41	5	205	3629	148.789	106774,106775,106782
WF BEAMS 16x50	40'	18	5	90	4536	81.648	106774,106787,106788
WF BEAMS 18x50	40'	17	4	68	3629	61.693	106833,106834,106835
WF BEAMS 18x60	40'	14	4	56	4354	60.956	106829,106830,106831
WF BEAMS 18x65	40'	21	4	84	4717	99.057	106828,106832,106841,106842

TOTAL BUNDLES 177 TOTAL WEIGHT 752.188 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	
105333	,088	1,210	,170	,018	,033	,003	,140	,190	,030	,460	,020	,054	,37	
105339	,096	1,200	,210	,023	,014	,001	,150	,120	,018	,460	,021	,033	,37	
105388	,090	1,180	,180	,022	,024	,002	,180	,120	,022	,420	,029	,048	,36	

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COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)													CEV							
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn									
105392	,117	1,230	,210	,026	,014	,002	,200	,120	,017	,550	,017	,034	,41								
106768	,084	1,130	,180	,020	,029	,006	,120	,170	,035	,420	,022	,019	,34								
106769	,093	1,160	,210	,026	,023	,002	,150	,160	,033	,440	,026	,030	,36								
106770	,090	1,220	,210	,028	,016	,002	,160	,190	,038	,470	,029	,026	,38								
106771	,100	1,160	,180	,023	,013	,002	,180	,200	,061	,460	,028	,031	,39								
106772	,086	1,170	,190	,019	,021	,003	,210	,210	,049	,500	,026	,035	,38								
106773	,092	1,210	,200	,016	,024	,004	,170	,200	,046	,450	,027	,055	,38								
106774	,085	1,190	,170	,018	,018	,001	,160	,180	,037	,410	,020	,065	,36								
106775	,078	1,240	,190	,018	,033	,003	,150	,190	,039	,410	,029	,071	,36								
106782	,106	1,160	,200	,031	,017	,004	,180	,190	,034	,480	,026	,036	,39								
106787	,088	1,150	,200	,022	,030	,001	,120	,160	,033	,480	,030	,038	,35								
106788	,090	1,100	,170	,025	,023	,001	,130	,180	,032	,430	,025	,028	,35								
106828	,075	1,200	,200	,014	,030	,002	,090	,150	,020	,330	,029	,026	,33								
106829	,077	1,240	,200	,016	,031	,001	,110	,160	,021	,400	,025	,098	,35								
106830	,109	1,240	,200	,015	,024	,002	,110	,140	,019	,350	,023	,045	,37								
106831	,098	1,160	,190	,016	,019	,002	,110	,140	,024	,310	,022	,026	,35								
106832	,086	1,130	,180	,020	,025	,001	,140	,140	,019	,360	,019	,022	,34								
106833	,085	1,180	,210	,018	,025	,002	,120	,140	,027	,370	,016	,020	,35								
106834	,089	1,160	,200	,022	,025	,001	,140	,150	,028	,420	,018	,019	,35								
106835	,084	1,160	,180	,022	,020	,001	,150	,150	,030	,420	,017	,020	,35								
106841	,091	1,190	,190	,018	,030	,001	,120	,140	,027	,280	,020	,029	,35								
106842	,102	1,370	,220	,023	,030	,003	,160	,150	,026	,290	,026	,026	,40								
106855	,087	1,210	,190	,018	,023	,002	,120	,160	,026	,330	,020	,033	,35								
106856	,082	1,190	,170	,019	,029	,001	,110	,160	,027	,340	,019	,029	,34								
107141	,087	1,200	,190	,029	,023	,001	,170	,200	,031	,430	,020	,033	,37								

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		Rm MPa		A% LO=8"	
B11	B08	C11		C12		C13	
W-12x30	105388	380	369	543	520	24,1	23,6
W-12x30	105392	367	359	548	537	22,6	22,5
W-12x30	106855	365	355	528	516	21,8	21,5
W-12x30	106856	380	372	518	518	22,1	21,7
W-14x34	105333	369	359	519	497	23,6	23,1
W-14x34	105339	363	356	540	538	23,2	22,5
W-14x34	107141	364	358	548	547	22,5	22,
W-16x40	106774	357	364	535	534	28,6	27,9
W-16x40	106775	379	369	537	535	24,1	23,9
W-16x40	106782	380	376	547	549	22,1	21,6
W-16x50	106774	376	370	522	508	25,4	24,8
W-16x50	106787	393	381	549	539	21,2	21,1
W-16x50	106788	386	380	549	537	21,3	21,1
W-18x50	106833	370	368	520	500	25,5	25,4
W-18x50	106834	382	377	512	502	26,2	25,8
W-18x50	106835	381	380	525	513	26,	25,6
W-18x60	106829	384	376	528	514	24,6	24,1
W-18x60	106830	376	374	539	515	22,9	22,7
W-18x60	106831	370	368	511	497	25,7	25,5

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MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		Rm MPa		A% L0=8"	
B17	B06	C11		C12		C13	
W-18x65	106828	385	383	509	497	24,9	24,5
W-18x65	106832	384	378	526	522	23,2	23,2
W-18x65	106841	370	370	527	508	25,4	25,3
W-18x65	106842	376	364	503	495	26,7	26,2
W-8x18	106768	372	368	542	546	21,6	20,9
W-8x18	106769	377	363	549	538	21,6	20,9
W-8x18	106770	378	368	548	538	21,6	21,1
W-8x21	106771	374	368	541	537	21,4	21,
W-8x21	106772	368	364	547	539	21,2	21,1
W-8x21	106773	368	364	543	553	21,5	21,
W-8x21	106774	376	364	546	530	21,6	21,2

28 análisis

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

B06: Marca APO

Z01


Luis María Lakunza