

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



MILL TEST CERTIFICATE

OLA P-49901

DISCHARGE ADDRESS		CUSTOMER	
SHIPPED AND CERTIFIED BY ARCELORMITTAL OLABERRIA CARRETERA MADRID - IRUN, KM. 419 20212 OLABERRIA (Gipuzkoa) TELEF. (943) 80.50.00 - FAX (943) 88.04.04		CREDIT NUMBER	PORT OF LOADING
			BILBAO, SPAIN
		PORT OF DISCHARGE	VESSEL
		ALTAMIRA	ANET
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
P1704510	01-E-54915 / 1700022500	601449	27/05/2016

Material: "WFB-PERFILES DE ACERO AL CARBONO LAMINADO EN CALIENTE"

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

ARCELORMITTAL GUIPUZKOA, 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
+/WHITE							
WF BEAMS 14x61	40'	6	4	24	4427	26.562	165346
WF BEAMS 14x61	40'	15	4	60	4427	66.405	165347
WF BEAMS 14x61	40'	3	4	12	4427	13.281	165348
WF BEAMS 14x68	40'	12	4	48	4935	59.220	165344
WF BEAMS 14x68	40'	7	4	28	4935	34.545	165345
WF BEAMS 14x74	40'	15	3	45	4028	60.420	165341
WF BEAMS 14x74	40'	10	3	30	4028	40.280	165342
WF BEAMS 18x76	40'	1	3	3	4137	4.137	165328
WF BEAMS 18x76	40'	3	3	9	4137	12.411	165332
WF BEAMS 18x76	40'	2	3	6	4137	8.274	165333
WF BEAMS 18x76	40'	2	3	6	4137	8.274	165334
WF BEAMS 18x76	40'	13	3	39	4137	53.781	165335
WF BEAMS 18x76	40'	5	3	15	4137	20.685	165336
WF BEAMS 18x76	40'	8	3	24	4137	33.096	165337
WF BEAMS 18x76	40'	2	3	6	4137	8.274	165338
WF BEAMS 18x86	40'	17	3	51	4681	79.577	165324
WF BEAMS 18x86	40'	6	3	18	4681	28.086	165325
WF BEAMS 18x86	40'	7	3	21	4681	32.767	165326

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SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
WF BEAMS 18x86	40'	11	3	33	4681	51.491	165327
WF BEAMS 21x44	40'	8	6	48	4790	38.320	165370
WF BEAMS 21x44	40'	4	6	24	4790	19.160	165371
WF BEAMS 21x44	40'	11	6	66	4790	52.690	165372
WF BEAMS 21x44	40'	7	6	42	4790	33.530	165373
WF BEAMS 21x44	40'	4	6	24	4790	19.160	165374
WF BEAMS 21x44	40'	6	6	36	4790	28.740	165375
WF BEAMS 21x44	40'	4	6	24	4790	19.160	165376
WF BEAMS 21x44	40'	2	6	12	4790	9.580	165385
WF BEAMS 21x44	40'	2	6	12	4790	9.580	165414
WF BEAMS 21x44	40'	3	6	18	4790	14.370	165415
WF BEAMS 21x44	40'	10	6	60	4790	47.900	165419
WF BEAMS 21x44	40'	7	6	42	4790	33.530	165420
WF BEAMS 21x44	40'	23	6	138	4790	110.170	165421
WF BEAMS 21x44	40'	8	6	48	4790	38.320	165423
WF BEAMS 21x44	40'	6	6	36	4790	28.740	165424
WF BEAMS 21x44	40'	2	6	12	4790	9.580	165425
WF BEAMS 21x44	40'	2	6	12	4790	9.580	165426
WF BEAMS 21x44	40'	2	6	12	4790	9.580	165427
WF BEAMS 21x44	40'	10	6	60	4790	47.900	165428
WF BEAMS 21x44	40'	16	6	96	4790	76.640	165429
WF BEAMS 21x44	40'	4	6	24	4790	19.160	165430
WF BEAMS 21x44	40'	3	6	18	4790	14.370	165432
WF BEAMS 21x50	40'	2	5	10	4536	9.072	165338
WF BEAMS 21x50	40'	2	5	10	4536	9.072	165341
WF BEAMS 21x50	40'	6	5	30	4536	27.216	165342
WF BEAMS 21x50	40'	2	5	10	4536	9.072	165344
WF BEAMS 21x50	40'	7	5	35	4536	31.752	165345
WF BEAMS 21x50	40'	4	5	20	4536	18.144	165346
WF BEAMS 21x50	40'	10	5	50	4536	45.360	165350
WF BEAMS 21x50	40'	1	5	5	4536	4.536	165351
WF BEAMS 21x50	40'	4	5	20	4536	18.144	165353
WF BEAMS 21x50	40'	5	5	25	4536	22.680	165354
WF BEAMS 21x50	40'	11	5	55	4536	49.896	165355
WF BEAMS 21x50	40'	2	5	10	4536	9.072	165356
WF BEAMS 21x50	40'	8	5	40	4536	36.288	165396
WF BEAMS 21x50	40'	33	5	165	4536	149.688	165397

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SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
WF BEAMS 21x50	40'	19	5	95	4536	86.184	165398
WF BEAMS 21x50	40'	17	5	85	4536	77.112	165399
WF BEAMS 21x50	40'	16	5	80	4536	72.576	165400
WF BEAMS 21x50	40'	31	5	155	4536	140.616	165401
WF BEAMS 21x50	40'	29	5	145	4536	131.544	165402
WF BEAMS 21x50	40'	24	5	120	4536	108.864	165403
WF BEAMS 21x50	40'	20	5	100	4536	90.720	165404
WF BEAMS 21x50	40'	19	5	95	4536	86.184	165405
WF BEAMS 21x50	40'	3	5	15	4536	13.608	165406
WF BEAMS 21x57	40'	1	5	5	5171	5.171	162287
WF BEAMS 21x57	40'	2	5	10	5171	10.342	165407
WF BEAMS 21x57	40'	3	5	15	5171	15.513	165408
WF BEAMS 21x57	40'	6	5	30	5171	31.026	165409

TOTAL BUNDLES 576

TOTAL WEIGHT 2.640.778 Kg.

A02 EN 10204/3.1

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

(B01/B02/B03) A03

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COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)														CEV				
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn	Al						
162287	,090	,710	,190	,021	,023	,044	,140	,170	,028	,300	,003	,023	,001	,28					
165324	,101	,740	,210	,020	,022	,046	,080	,120	,020	,220	,003	,022	,001	,28					
165325	,098	,740	,230	,023	,019	,046	,120	,130	,022	,230	,003	,023	,002	,28					
165326	,116	,780	,200	,021	,020	,048	,190	,140	,023	,230	,003	,024	,001	,32					
165327	,094	,770	,200	,025	,020	,048	,190	,160	,029	,290	,003	,024	,001	,31					
165328	,089	,730	,170	,025	,017	,047	,140	,140	,025	,260	,003	,024	,001	,28					
165332	,094	,710	,190	,022	,017	,043	,150	,150	,027	,280	,003	,019	,002	,29					
165333	,099	,730	,180	,019	,018	,044	,140	,160	,026	,290	,003	,023	,001	,29					
165334	,099	,760	,200	,016	,021	,045	,160	,150	,026	,280	,003	,024	,001	,30					
165335	,099	,740	,190	,017	,018	,050	,140	,170	,028	,240	,003	,026	,001	,29					
165336	,090	,760	,190	,018	,018	,046	,140	,180	,031	,310	,003	,029	,002	,29					
165337	,085	,760	,180	,021	,022	,045	,170	,240	,064	,390	,003	,018	,001	,31					
165338	,090	,730	,190	,016	,020	,043	,130	,230	,046	,270	,003	,026	,002	,29					
165341	,095	,770	,200	,029	,020	,045	,200	,200	,039	,290	,003	,026	,001	,31					
165342	,091	,740	,180	,032	,025	,044	,160	,200	,039	,250	,003	,025	,001	,29					
165344	,097	,710	,200	,031	,020	,044	,170	,210	,043	,240	,003	,028	,002	,30					
165345	,099	,700	,210	,016	,016	,046	,110	,170	,027	,290	,003	,029	,002	,28					
165346	,101	,690	,180	,018	,020	,047	,120	,150	,025	,280	,003	,031	,002	,28					
165347	,119	,730	,180	,020	,021	,044	,140	,160	,025	,250	,003	,029	,001	,31					
165348	,107	,680	,200	,017	,020	,047	,130	,180	,031	,290	,003	,038	,001	,29					
165350	,097	,690	,190	,020	,020	,048	,170	,170	,029	,220	,003	,030	,002	,29					
165351	,110	,760	,180	,020	,019	,050	,160	,170	,032	,220	,003	,029	,001	,31					
165353	,115	,710	,180	,019	,017	,044	,150	,170	,030	,240	,003	,027	,001	,31					
165354	,069	,620	,190	,029	,028	,080	,170	,190	,032	,260	,003	,028	,001	,26					
165355	,096	,710	,210	,023	,022	,046	,150	,170	,025	,290	,003	,024	,001	,29					
165356	,093	,700	,160	,021	,019	,044	,150	,190	,035	,270	,003	,026	,001	,29					
165370	,089	,840	,200	,030	,022	,048	,210	,150	,032	,360	,003	,032	,001	,32					
165371	,086	,820	,190	,030	,020	,049	,200	,150	,028	,280	,003	,030	,002	,31					
165372	,075	,750	,210	,024	,022	,045	,170	,150	,030	,260	,003	,032	,002	,28					
165373	,090	,770	,190	,024	,021	,046	,160	,140	,025	,230	,003	,031	,001	,29					
165374	,109	,770	,190	,027	,020	,046	,170	,160	,029	,230	,003	,027	,002	,31					
165375	,094	,780	,180	,026	,020	,044	,170	,150	,024	,290	,003	,026	,001	,30					
165376	,092	,770	,210	,023	,021	,046	,160	,180	,032	,270	,003	,033	,001	,30					
165385	,090	,780	,220	,031	,025	,049	,220	,150	,024	,260	,003	,033	,002	,31					
165396	,096	,740	,200	,019	,019	,048	,180	,180	,032	,260	,003	,027	,002	,30					
165397	,102	,770	,170	,018	,018	,045	,130	,150	,021	,210	,003	,026	,001	,29					
165398	,095	,750	,220	,016	,020	,044	,210	,220	,045	,230	,003	,027	,002	,31					
165399	,091	,760	,220	,016	,019	,045	,210	,220	,044	,230	,003	,027	,001	,31					
165400	,095	,730	,220	,015	,022	,043	,160	,190	,033	,200	,003	,026	,002	,29					
165401	,080	,740	,210	,017	,020	,046	,150	,180	,033	,280	,003	,026	,002	,28					
165402	,080	,740	,180	,023	,018	,047	,160	,160	,027	,250	,003	,023	,001	,28					
165403	,091	,730	,180	,022	,020	,046	,130	,160	,025	,230	,003	,026	,001	,28					
165404	,101	,780	,190	,020	,020	,048	,160	,200	,032	,250	,003	,027	,001	,31					
165405	,092	,730	,230	,017	,019	,048	,160	,200	,037	,240	,003	,030	,001	,29					
165406	,077	,690	,210	,016	,021	,047	,150	,180	,037	,220	,003	,027	,001	,27					
165407	,074	,730	,230	,017	,023	,050	,130	,190	,037	,230	,003	,021	,001	,27					
165408	,078	,720	,210	,018	,022	,049	,180	,200	,033	,220	,003	,025	,001	,28					
165409	,092	,750	,190	,019	,021	,047	,190	,180	,030	,240	,005	,027	,001	,30					

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COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)														CEV				
	C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn	Al						
165414	,100	,770	,200	,022	,020	,049	,240	,170	,040	,260	,003	,027	,002	,32					
165415	,097	,720	,170	,023	,020	,046	,160	,190	,037	,310	,003	,020	,001	,30					
165419	,088	,740	,180	,020	,021	,053	,130	,170	,034	,290	,003	,025	,001	,29					
165420	,074	,760	,180	,019	,021	,046	,170	,190	,034	,290	,003	,021	,001	,28					
165421	,090	,790	,200	,028	,021	,048	,200	,190	,035	,300	,003	,026	,001	,31					
165423	,098	,750	,210	,025	,022	,047	,230	,190	,030	,280	,003	,031	,001	,32					
165424	,090	,790	,220	,027	,024	,047	,230	,190	,031	,280	,003	,028	,001	,31					
165425	,093	,730	,190	,021	,021	,047	,110	,180	,027	,280	,003	,025	,001	,28					
165426	,098	,730	,190	,021	,021	,045	,150	,170	,030	,290	,003	,037	,001	,30					
165427	,082	,740	,190	,024	,021	,046	,160	,160	,024	,290	,003	,031	,002	,28					
165428	,090	,730	,180	,023	,021	,049	,210	,170	,033	,260	,003	,024	,001	,30					
165429	,108	,750	,210	,019	,018	,050	,140	,190	,033	,250	,003	,026	,001	,31					
165430	,075	,770	,220	,023	,023	,050	,220	,230	,043	,240	,003	,028	,002	,30					
165432	,098	,680	,190	,017	,018	,042	,140	,200	,031	,280	,003	,027	,001	,29					

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES						A% LO=8"	
		ReH MPa		Rm MPa		A%			
		C11	C12	C12	C12	C13	C13		
W-14x61	165346	376	362	484	466	25,3	24,8		
W-14x61	165347	368	357	505	490	25,1	24,7		
W-14x61	165348	409	399	530	524	23,1	22,9		
W-14x68	165344	363	361	487	473	26,6	26,6		
W-14x68	165345	373	365	483	470	25,6	25		
W-14x74	165341	376	374	498	490	22,8	22,6		
W-14x74	165342	361	355	479	475	24,5	23,9		
W-18x76	165328	387	383	516	501	24,4	23,8		
W-18x76	165332	360	350	479	458	22,8	22,2		
W-18x76	165333	384	374	505	488	22,2	21,9		
W-18x76	165334	387	373	504	493	23,9	23,9		
W-18x76	165335	396	386	513	498	23,1	22,4		
W-18x76	165336	385	383	490	482	24,2	23,9		
W-18x76	165337	373	369	482	468	24,3	23,6		
W-18x76	165338	383	374	493	484	22,8	22,3		
W-18x86	165324	359	355	481	480	24,7	23,9		
W-18x86	165325	377	371	494	488	23,5	22,8		
W-18x86	165326	395	389	516	510	25,6	25,2		
W-18x86	165327	370	362	501	495	26,7	26,2		
W-21x44	165370	380	369	481	481	22,7	22,2		
W-21x44	165371	369	367	484	477	22,3	21,8		
W-21x44	165372	378	370	496	490	22,3	22		
W-21x44	165373	386	370	500	492	23,1	23		
W-21x44	165374	392	376	493	481	23	22,3		
W-21x44	165375	378	378	491	475	22,2	21,9		
W-21x44	165376	363	356	476	470	22,3	22,2		
W-21x44	165385	399	397	509	506	22,3	22,3		
W-21x44	165414	403	389	496	492	22,9	22,1		
W-21x44	165415	399	390	520	513	22,1	21,9		
W-21x44	165419	388	376	506	504	22,5	21,7		

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MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES					
		ReH MPa		Rm MPa		A% LO=B"	
B11	B09	C11		C12		C13	
W-21x44	165420	388	386	508	494	23,1	22,7
W-21x44	165421	391	384	510	491	22,2	22,
W-21x44	165423	398	382	511	489	22,3	21,8
W-21x44	165424	404	394	511	495	22,4	21,9
W-21x44	165425	392	392	512	496	22,3	22,
W-21x44	165426	401	389	512	497	22,3	21,8
W-21x44	165427	405	395	504	496	22,4	21,8
W-21x44	165428	416	403	518	503	22,6	22,2
W-21x44	165429	386	376	494	486	22,1	21,7
W-21x44	165430	384	383	500	491	22,4	22,
W-21x44	165432	390	388	504	488	22,6	22,
W-21x50	165338	376	368	486	472	22,7	22,5
W-21x50	165341	399	385	504	500	24,1	23,8
W-21x50	165342	402	410	503	501	23,7	21,9
W-21x50	165344	392	380	508	491	22,5	22,1
W-21x50	165345	381	371	494	488	22,7	22,5
W-21x50	165346	391	379	505	505	22,3	22,1
W-21x50	165350	379	369	485	481	26,6	26,3
W-21x50	165351	383	373	492	490	22,7	22,4
W-21x50	165353	394	392	515	507	22,2	21,9
W-21x50	165354	378	376	488	473	22,2	21,9
W-21x50	165355	387	373	508	486	22,5	21,7
W-21x50	165356	396	388	511	498	22,5	21,7
W-21x50	165396	391	379	496	486	22,7	22,5
W-21x50	165397	377	369	485	481	22,8	22,4
W-21x50	165398	381	377	485	475	22,4	21,9
W-21x50	165399	389	380	499	491	22,6	22,3
W-21x50	165400	374	360	483	478	23,1	23,
W-21x50	165401	381	368	493	473	23,1	22,8
W-21x50	165402	385	372	496	482	23,2	22,6
W-21x50	165403	383	374	494	482	23,3	22,8
W-21x50	165404	394	392	514	498	22,7	22,1
W-21x50	165405	407	391	516	507	23,	22,4
W-21x50	165406	372	366	477	468	22,8	22,1
W-21x57	162287	372	360	507	494	22,8	22,4
W-21x57	165407	371	371	483	481	23,1	22,6
W-21x57	165408	377	367	481	479	23,	22,2
W-21x57	165409	387	383	511	505	22,7	22,6

62 análisis

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

B06: Marca AMO

Responsable del Departamento de Calidad Z01

Lorenzo Zabala