

ArcelorMittal Madrid, S.L.  
 Long Carbon Steel Europe  
 CARRETERA TOLEDO, N-401 - KM. 9,200  
 28021 VILLAVERDE (Madrid)  
 TELEF. (91) 797.23.00 - FAX (91) 795.31.81



ArcelorMittal

## QUALITY CERTIFICATE

MAD P-9569

DISCHARGE ADDRESS		CUSTOMER	
Ferre Barniedo, S.A. de C.V. Edo. de Mexico San Cristobal Ecatepec, C.P. MEXICO		Ferre Barniedo, S.A. de C.V. Edo. de Mexico San Cristobal Ecatepec, C.P. MEXICO <b>39206</b>	
SHIPPED AND CERTIFIED BY		CREDIT NUMBER	PORT OF LOADING
ARCELORMITTAL MADRID, S.L. CARRETERA TOLEDO, N-401 - KM. 9,200 28021 VILLAVERDE (Madrid) TELEF. (91) 797.23.00 - TELEX 22120 - 49632 ARIS			PASAJES, SPAIN
		PORT OF DISCHARGE	VESSEL
		TAMPICO	MILTIADES II
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
mcabello	1700007944	MEZCLA 11-08-08	30/09/2008

Material: WF Vigas,

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

ARCELORMITTAL MADRID, S.L. ES/28/0047/03

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
<b>WHITE</b>							
WF BEAMS 10x88	40'	31	3	93	4790	148.490	77930,77944,77946, 77949,77950,77951, 77952,77953,77954, 77955,77956
WF BEAMS 21x62	40'	70	5	350	5625	393.750	76410,76411,77912, 77915,77916,77917, 77918,77919,77920, 77921,77922,77923, 77924,77925,77926, 77927,77928,77929
WF BEAMS 21x62	40'	1	4	4	4500	4.500	76902
WF BEAMS 14x61	40'	1	2	2	2214	2.214	75682
WF BEAMS 14x61	40'	45	4	180	4427	199.215	77932,77933
WF BEAMS 16x67	40'	39	4	156	4863	189.657	77911,77912,77913, 77914,77915,77995
WF BEAMS 18x76	40'	73	4	292	5516	402.668	77918,77921,77922, 77923,77924,77925, 77926,77927
WF BEAMS 18x97	40'	31	3	93	5280	163.680	76890,77928,77929, 77930,77931
WF BEAMS 18x119	40'	23	2	46	4318	99.314	76987,77918,77919
WF BEAMS 24x68	40'	81	4	324	4935	399.735	77950,77951,77952, 77953,77954,77955, 77956,77963,77964, 77965

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SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
WF BEAMS 24x76	40'	54	4	216	5516	297.864	77946,77947,77948, 77949,77950,77966
WF BEAMS 24x84	40'	44	3	132	4572	201.168	77943,77944,77945, 77946
WF BEAMS 24x94	40'	39	3	117	5117	199.563	75699,77938,77939, 77940,77941,77942, 77943

TOTAL BUNDLES 532

TOTAL WEIGHT 2.701.818 Kg.

A02 EN 10204/3.1 A03

ESTE BARRIDO ORIGINAL DEL CERTIFICADO  
 CSA G40.21 50W/ASTM A572 G50/A992/A6

(B01/B02/B03)

C70:E MATERIAL SIZE	COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)													PROPIEDADES MECANICAS MECHANICAL PROPERTIES			
		C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn	CEV	ReH MPa	Rm MPa	A% LO=8"	Doblad. 180°
B11	B08	C71	C72	C73	C74	C75	C76							C77	C78	C79	C80	
W-10x88	77930	,084	,764	,210	,019	,025	,004	,099	,129	,021	,488	,016	,019	,277	349	466	22,6	
W-10x88	77944	,116	,762	,212	,021	,013	,004	,162	,154	,028	,507	,018	,018	,326	351	472	22,7	
W-10x88	77946	,094	,715	,184	,019	,019	,004	,109	,211	,026	,519	,016	,022	,290	348	473	22,6	
W-10x88	77949	,092	,722	,182	,030	,025	,004	,142	,147	,022	,514	,019	,025	,290	347	464	25,1	
W-10x88	77950	,084	,713	,199	,023	,021	,004	,134	,164	,023	,473	,018	,020	,278	349	466	24,	
W-10x88	77951	,084	,719	,209	,029	,020	,004	,170	,153	,022	,549	,021	,023	,290	352	469	23,5	
W-10x88	77952	,085	,726	,213	,022	,028	,004	,107	,137	,023	,548	,019	,025	,278	349	469	24,2	
W-10x88	77953	,096	,714	,185	,019	,020	,005	,121	,114	,021	,500	,018	,020	,285	352	472	23,2	
W-10x88	77954	,085	,748	,176	,027	,025	,005	,137	,125	,024	,503	,021	,023	,285	350	471	22,4	
W-10x88	77955	,093	,742	,191	,023	,011	,005	,112	,125	,026	,477	,020	,021	,285	354	482	21,7	
W-10x88	77956	,067	,732	,213	,020	,016	,003	,110	,151	,021	,549	,016	,024	,262	351	465	23,3	
W-14x61	75682	,131	,859	,181	,019	,030	,002	,109	,103	,020	,441	,015	,019	,337	381	502	22,8	
W-14x61	77932	,110	,802	,177	,027	,016	,004	,153	,142	,023	,518	,017	,019	,324	393	514	22,4	
W-14x61	77933	,079	,707	,194	,027	,023	,003	,118	,143	,020	,549	,017	,021	,271	383	489	22,7	
W-16x67	77911	,093	,741	,214	,020	,023	,003	,190	,151	,028	,548	,016	,021	,307	365	479	23,8	
W-16x67	77912	,083	,812	,199	,013	,026	,003	,118	,130	,023	,454	,018	,019	,286	359	475	23,9	
W-16x67	77913	,098	,828	,217	,016	,024	,003	,083	,130	,021	,496	,018	,023	,299	363	476	21,8	
W-16x67	77914	,089	,764	,192	,018	,018	,003	,104	,122	,019	,508	,017	,024	,284	360	478	23,7	
W-16x67	77915	,094	,767	,209	,016	,022	,003	,112	,117	,019	,513	,019	,035	,291	379	479	24,	
W-16x67	77995	,078	,764	,171	,023	,019	,003	,108	,156	,023	,458	,016	,020	,273	369	477	21,6	
W-18x119	76987	,094	1,238	,201	,019	,028	,004	,107	,102	,026	,483	,016	,021	,367	387	520	20,1	
W-18x119	77918	,089	,785	,197	,019	,017	,003	,124	,108	,018	,523	,017	,024	,291	376	483	24,1	
W-18x119	77919	,085	,790	,214	,011	,027	,003	,089	,154	,022	,517	,018	,027	,284	381	484	23,4	
W-18x76	77918	,089	,785	,197	,019	,017	,003	,124	,108	,018	,523	,017	,024	,291	373	496	23,5	
W-18x76	77921	,085	,763	,247	,019	,014	,004	,116	,149	,024	,544	,017	,023	,287	385	512	23,7	
W-18x76	77922	,094	,800	,209	,023	,023	,004	,092	,129	,024	,525	,016	,024	,295	370	492	23,1	
W-18x76	77923	,085	,798	,198	,016	,018	,003	,126	,126	,021	,523	,018	,022	,291	383	507	23,	
W-18x76	77924	,101	,742	,190	,017	,018	,003	,107	,136	,022	,462	,017	,020	,291	380	487	26,	
W-18x76	77925	,137	,716	,176	,015	,011	,003	,093	,118	,018	,532	,016	,029	,322	382	509	22,1	
W-18x76	77926	,131	,703	,176	,014	,019	,003	,099	,123	,018	,493	,016	,021	,313	369	495	23,	
W-18x76	77927	,112	,834	,201	,030	,016	,004	,191	,142	,024	,516	,019	,025	,339	379	499	23,7	
W-18x97	76890	,099	,910	,199	,028	,028	,003	,061	,118	,021	,473	,017	,023	,307	375	498	21,8	
W-18x97	77928	,095	,768	,217	,020	,015	,003	,122	,133	,021	,508	,019	,022	,295	363	479	26,3	
W-18x97	77929	,104	,795	,218	,018	,027	,003	,100	,143	,021	,511	,019	,021	,305	376	485	26,9	

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**QUALITY CERTIFICATE**

**MAD P-9569**

A02 EN 10204/3.1															A03			
CSA G40.21 50W/ASTM A572 G50/A992/A6															(B01/B02/E03)			
C70:E MATERIAL SIZE	COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)												PROPIEDADES MECANICAS MECHANICAL PROPERTIES				
		C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn	CEV	ReH MPa	Rm MPa	A% L0=8"	Doblad. 180°
B11	B08	C71	C72	C73	C74	C75	C76								C11	C12	C13	C50
W-18x97	77930	.084	.764	.210	.019	.025	.004	.099	.129	.021	.488	.016	.019	.277	348	473	25,8	
W-18x97	77931	.079	.733	.212	.025	.021	.004	.120	.143	.023	.545	.017	.021	.276	350	475	26,4	
W-21x62	76410	.085	.851	.213	.027	.024	.002	.110	.088	.016	.341	.017	.014	.281	372	488	22,4	
W-21x62	76411	.079	.864	.204	.016	.021	.002	.086	.090	.018	.384	.017	.014	.276	369	474	21,7	
W-21x62	76902	.088	.788	.180	.023	.028	.003	.089	.102	.017	.469	.018	.020	.279	376	490	22,7	
W-21x62	77912	.083	.812	.199	.013	.026	.003	.118	.130	.023	.454	.018	.019	.286	374	480	25,	
W-21x62	77915	.094	.767	.209	.016	.022	.003	.112	.117	.019	.513	.019	.035	.291	371	475	25,3	
W-21x62	77916	.099	.824	.196	.015	.023	.003	.079	.103	.018	.471	.018	.029	.295	365	478	24,3	
W-21x62	77917	.083	.793	.213	.018	.024	.003	.132	.142	.024	.516	.019	.031	.291	373	476	26,1	
W-21x62	77918	.089	.785	.197	.019	.017	.003	.124	.108	.018	.523	.017	.024	.291	373	479	26,2	
W-21x62	77919	.085	.796	.214	.011	.027	.003	.089	.154	.022	.517	.018	.027	.284	375	475	25,8	
W-21x62	77920	.089	.749	.217	.022	.045	.003	.136	.134	.021	.517	.017	.021	.289	375	476	25,1	
W-21x62	77921	.085	.763	.247	.019	.014	.004	.116	.149	.024	.544	.017	.023	.287	375	477	26,4	
W-21x62	77922	.094	.800	.209	.023	.023	.004	.092	.129	.024	.525	.016	.024	.295	369	480	26,1	
W-21x62	77923	.085	.798	.198	.016	.018	.003	.126	.126	.021	.523	.018	.022	.291	374	482	26,3	
W-21x62	77924	.081	.742	.190	.017	.018	.003	.107	.136	.022	.462	.017	.020	.291	368	484	25,1	
W-21x62	77925	.182	.716	.176	.015	.011	.003	.093	.118	.018	.532	.016	.029	.322	364	477	25,8	
W-21x62	77926	.131	.703	.176	.014	.019	.003	.099	.123	.018	.493	.016	.021	.313	368	476	26,4	
W-21x62	77927	.112	.834	.201	.030	.016	.004	.191	.142	.024	.516	.019	.025	.339	358	481	25,1	
W-21x62	77928	.095	.788	.217	.020	.015	.003	.122	.133	.021	.508	.019	.022	.295	367	476	26,	
W-21x62	77929	.104	.795	.218	.018	.027	.003	.100	.143	.021	.511	.019	.021	.305	372	483	25,7	
W-24x68	77930	.084	.716	.199	.023	.021	.004	.134	.164	.023	.473	.018	.020	.278	374	486	24,4	
W-24x68	77951	.084	.719	.209	.029	.020	.004	.170	.153	.022	.549	.021	.023	.290	388	489	23,8	
W-24x68	77952	.085	.726	.213	.022	.028	.004	.162	.167	.023	.548	.019	.025	.278	385	477	24,3	
W-24x68	77953	.096	.714	.185	.019	.020	.005	.121	.114	.021	.500	.018	.020	.285	372	477	25,3	
W-24x68	77954	.085	.748	.176	.027	.025	.005	.137	.125	.024	.503	.021	.023	.285	375	474	27,8	
W-24x68	77955	.093	.742	.191	.023	.011	.005	.112	.125	.026	.477	.020	.021	.285	371	484	21,9	
W-24x68	77956	.067	.732	.213	.020	.016	.003	.110	.151	.021	.549	.016	.024	.262	376	479	24,3	
W-24x68	77963	.089	.812	.201	.011	.020	.002	.070	.131	.019	.461	.017	.019	.282	364	476	23,6	
W-24x68	77964	.090	.780	.200	.018	.017	.003	.100	.117	.018	.467	.016	.021	.283	356	466	24,	
W-24x68	77965	.084	.773	.195	.015	.024	.003	.102	.120	.018	.517	.016	.023	.280	369	478	24,9	
W-24x76	77946	.094	.715	.184	.019	.019	.004	.109	.211	.026	.519	.016	.022	.290	363	478	25,4	
W-24x76	77947	.101	.783	.218	.015	.020	.004	.073	.173	.024	.488	.020	.022	.296	349	475	25,	
W-24x76	77948	.087	.728	.206	.017	.021	.003	.111	.166	.025	.478	.017	.021	.279	365	477	24,9	
W-24x76	77949	.092	.722	.182	.030	.025	.004	.142	.147	.022	.514	.019	.025	.290	378	476	25,3	
W-24x76	77950	.084	.713	.199	.023	.021	.004	.134	.164	.023	.473	.018	.020	.278	350	480	24,8	
W-24x76	77966	.096	.749	.208	.017	.023	.003	.118	.121	.018	.477	.016	.027	.289	352	478	25,2	
W-24x84	77943	.085	.736	.215	.027	.017	.004	.137	.165	.025	.545	.019	.022	.287	351	479	23,9	
W-24x84	77944	.116	.762	.212	.021	.013	.004	.162	.154	.028	.507	.018	.018	.326	351	484	24,2	
W-24x84	77945	.088	.777	.187	.024	.023	.004	.154	.147	.025	.495	.017	.026	.297	351	477	23,8	
W-24x84	77946	.094	.715	.184	.019	.019	.004	.109	.211	.026	.519	.016	.022	.290	350	472	23,5	
W-24x94	75699	.099	.795	.154	.027	.019	.002	.115	.091	.017	.456	.016	.020	.295	382	493	23,9	
W-24x94	77938	.096	.738	.214	.029	.025	.004	.161	.166	.024	.532	.018	.023	.303	356	473	25,8	
W-24x94	77939	.079	.747	.203	.029	.016	.004	.213	.210	.032	.504	.019	.023	.301	358	475	26,	
W-24x94	77940	.098	.778	.185	.026	.021	.005	.185	.167	.029	.542	.019	.022	.319	355	472	23,3	

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C70:E MATERIAL SIZE	COLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)												PROPIEDADES MECANICAS MECHANICAL PROPERTIES			
		C	Mn	Si	P	S	V	Cr	Ni	Mo	Cu	Nb	Sn	CEV	ReH MPa	Rm MPa	A% L0=8"
811	B08	C71	C72	C73	C74	C75	C76							C11	C12	C13	C50
W-24x94	77941	,103	,802	,208	,021	,015	,004	,161	,156	,027	,545	,019	,021	,322	355	471	25,3
W-24x94	77942	,090	,752	,219	,014	,020	,004	,122	,146	,023	,539	,018	,020	,291	352	473	27,2
W-24x94	77943	,085	,730	,215	,027	,017	,004	,137	,165	,025	,545	,019	,022	,287	350	471	23,8

Z01

**82 análisis**

D01: Inspection - We hereby certify that the above steels have been satisfactorily tested in accordance with the specification.  
 B06: Marca APM

Juan Pablo Canullo

FERREBARNIEDO, S.A. DE C.V.  
 CERTIFICADO ORIGINAL DE NUESTROS ARCHIVOS  
 AMPARA LA REMISION COPIA  
 TEL 58-36-10-00 No. \_\_\_\_\_  
 ventas@ferrebarniedo.com.mx