

A01



CARRETERA TOLEDO, N-401 - KM. 9.200  
 28021 VILLAVERDE (Madrid)  
 TELEF. (91) 797.23.00 - TELEX 22120 - 49632  
 ARIS E - TELEFAX (91) 795.31.81

EST 538



**CERTIFICADO DE CALIDAD - QUALITY CERTIFICATE**

**MAD 746**

DISCHARGE ADDRESS		CUSTOMER	
FERRE BARNIEDO, S.A. DE C.V. AV REVOLUCION,81 CP 55000 ECATEPEC EDO DE MEXICO		FERRE BARNIEDO, S.A. DE C.V. AV REVOLUCION,81 CP 55000 ECATEPEC EDO DE MEXICO	
SHIPPED AND CERTIFIED BY		CREDIT NUMBER	PORT OF LOADING
ACERALIA PERFILES MADRID CARRETERA TOLEDO, KM. 9 28021 MADRID TELEF. (91) 797.23.00 - FAX (91) 795.31.81			PASAJES, SPAIN
		PORT OF DISCHARGE	VESSEL
		TAMPICO	ANTHIA
OUR REFERENCE	CONTRACT NUMBER	ORDER NUMBER	DATE
MERCHE	E-19292	4° Trim. 04	15/12/2004

Material: WF Vigas, calidad DUAL ASTM A-36 / A 572 Gr. 50

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

ACERALIA PERFILES MADRID, S.L. ES/28/0047/03

Declara que, salvo indicación en sentido contrario, estos productos gozan de un origen preferencial ESPAÑA

27496

SIZE	LENGTH	BUNDLES	PIECES BUNDLES	TOTAL PIECES	WEIGHT BUNDLES	TOTAL WEIGHT	HEAT
/ BLANCO							
WF BEAMS 10x49	40'	11	6	66	5334	58.674	61555,61556,61557
WF BEAMS 18x143	40'	18	2	36	5189	93.402	61728,61748,61749,61750
WF BEAMS 14x61	40'	18	4	72	4427	79.686	61706,61708,61710,61711, 1713
WF BEAMS 14x68	40'	12	4	48	4935	59.220	61721,61722,61723,61725
WF BEAMS 14x74	40'	19	4	76	5371	102.049	61707,61746,61747,61748
WF BEAMS 21x62	40'	11	5	55	5625	61.875	61568,61614,61815,61650, 1651
WF BEAMS 21x68	40'	12	4	48	4935	59.220	61565,61566,61615,61616, 1650

TOTAL BUNDLES 101 TOTAL WEIGHT 514.126 Kg.

A02 EN 10204/3.1.b		ASTM A36 - A572 G50/A6														(B01/B02/B03) AC	
MATERIAL SIZE	COLADA HEAT	COMPOSICIÓN QUÍMICA (%) CHEMICAL COMPOSITION (%)															
		C	Mn	SI	P	S	N	V	Cr	Ni	Mo	Cu	Nb	Al	Ti	Cev	
W-10x49	61555	.09	.80	.22	.020	.022	.011	.002	.081	.133	.020	.506	.018	.002	.002	.28	
W-10x49	61556	.09	.75	.20	.019	.027	.011	.002	.111	.121	.054	.504	.016	.002	.002	.29	
W-10x49	61557	.09	.72	.19	.017	.024	.011	.002	.116	.113	.028	.535	.015	.002	.002	.28	
W-14x61	61706	.08	.75	.21	.026	.021	.010	.002	.118	.129	.021	.568	.017	.002	.002	.28	
W-14x61	61708	.09	.77	.22	.031	.017	.009	.003	.126	.110	.018	.582	.018	.002	.002	.29	

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		C	Mn	Si	P	S	N	V	Cr	Ni	Mo	Cu	Nb	Al	Ti	Cev	
W-14x61	61710	,09	,79	,22	,022	,014	,010	,002	,124	,111	,016	,517	,017	,002	,002	,29	
W-14x61	61711	,09	,80	,19	,015	,026	,010	,002	,079	,119	,020	,519	,016	,002	,002	,29	
W-14x61	61713	,08	,85	,21	,014	,016	,011	,002	,074	,118	,022	,447	,019	,002	,002	,28	
W-14x68	61721	,08	,77	,20	,015	,024	,010	,002	,095	,124	,020	,562	,017	,002	,002	,28	
W-14x68	61722	,08	,80	,22	,013	,018	,010	,002	,076	,127	,021	,628	,018	,002	,002	,28	
W-14x68	61723	,08	,76	,21	,022	,015	,011	,002	,119	,122	,023	,615	,018	,002	,002	,29	
W-14x68	61725	,09	,76	,20	,024	,013	,010	,002	,137	,117	,025	,530	,018	,002	,002	,29	
W-14x74	61707	,08	,73	,21	,016	,014	,009	,002	,117	,117	,020	,577	,016	,002	,002	,28	
W-14x74	61746	,10	,74	,18	,022	,021	,011	,002	,130	,140	,021	,539	,017	,002	,002	,29	
W-14x74	61747	,09	,76	,20	,018	,025	,010	,002	,079	,141	,020	,622	,016	,002	,002	,28	
W-14x74	61748	,09	,71	,20	,015	,019	,010	,002	,111	,172	,031	,625	,017	,002	,002	,29	
W-18x143	61728	,09	,79	,21	,019	,017	,010	,002	,108	,113	,020	,495	,017	,002	,002	,29	
W-18x143	61748	,09	,71	,20	,015	,019	,010	,002	,111	,172	,031	,625	,017	,002	,002	,29	
W-18x143	61750	,08	,70	,19	,023	,020	,010	,002	,114	,151	,028	,664	,018	,002	,002	,28	
W-21x62	61568	,10	,73	,21	,021	,021	,010	,002	,109	,127	,022	,558	,017	,002	,002	,29	
W-21x62	61614	,08	,76	,21	,018	,026	,010	,002	,149	,117	,020	,574	,017	,002	,002	,29	
W-21x62	61615	,09	,77	,20	,024	,021	,010	,002	,140	,112	,017	,502	,016	,002	,002	,29	
W-21x62	61650	,10	,75	,20	,015	,027	,010	,002	,076	,136	,046	,593	,016	,002	,002	,30	
W-21x62	61651	,09	,74	,19	,014	,015	,010	,002	,074	,120	,027	,598	,016	,002	,002	,28	
W-21x68	61565	,09	,80	,21	,015	,021	,010	,002	,089	,125	,022	,557	,016	,002	,002	,29	
W-21x68	61566	,09	,80	,22	,019	,028	,010	,002	,094	,119	,020	,546	,018	,002	,002	,29	
W-21x68	61615	,09	,77	,20	,024	,021	,010	,002	,140	,112	,017	,502	,016	,002	,002	,29	
W-21x68	61616	,08	,72	,20	,030	,018	,010	,002	,186	,125	,021	,593	,016	,002	,002	,29	
W-21x68	61650	,10	,75	,20	,015	,027	,010	,002	,076	,136	,046	,593	,016	,002	,002	,30	

MATERIAL SIZE	COLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES				FLEXIÓN POR CHOQUE IMPACT TEST				
		ReH MPa	Rm MPa	A% L0=5,65S0	Doblado 180°	KCV	V1 J	V2 J	V3 J	Media J
W-10x49	61555	381	489	23,7						
W-10x49	61556	386	490	23,6						
W-10x49	61557	379	482	24,7						
W-14x61	61706	387	491	25,8						
W-14x61	61708	385	488	25,2						
W-14x61	61710	377	484	24,						
W-14x61	61711	380	488	24,8						
W-14x61	61713	381	482	24,6						
W-14x68	61721	384	491	23,7						
W-14x68	61722	388	491	23,5						
W-14x68	61723	377	489	23,8						
W-14x68	61725	389	493	23,2						
W-14x74	61707	375	479	24,9						
W-14x74	61746	375	479	25,8						
W-14x74	61747	372	481	24,5						
W-14x74	61748	375	480	25,6						
W-18x143	61728	369	475	23,5						
W-18x143	61748	370	479	23,5						
W-18x143	61750	365	478	24,6						
W-21x62	61568	387	487	25,						