

ArcelorMittal Gipuzkoa, S.L.U.

Long Carbon Steel Europe

CARRETERA MADRID - IRUN, KM. 419

20212 OLABERRIA (Gipuzkoa)

TELEF. (943) 80.50.00 - FAX (943) 88.04.04



QUALITY CERTIFICATE

BER P-14720

MATERIAL SIZE	CÓLADA HEAT	COMPOSICION QUIMICA (%) CHEMICAL COMPOSITION (%)														Cev				
		C	Mn	Si	P	S	N	V	Cr	Ni	Mo	Cu	Nb	Al						
B11	B08	C11	C12	C13	C14	C15	C16	C17	C18											
W-6x12	522447	,08	1,26	,20	,028	,027	,000	,045	,190	,160	,024	,360	,008	,002						,37
W-6x12	522448	,08	1,20	,18	,027	,028	,000	,040	,120	,160	,023	,360	,006	,003						,36
W-6x12	522449	,09	1,22	,20	,034	,005	,000	,041	,150	,130	,028	,340	,001	,003						,37
W-6x12	522450	,08	1,19	,19	,024	,024	,000	,040	,150	,180	,033	,360	,008	,004						,36
W-6x12	522457	,08	1,23	,20	,023	,016	,000	,044	,090	,100	,013	,290	,005	,003						,34
W-6x16	522532	,10	1,21	,19	,022	,030	,000	,043	,100	,380	,017	,310	,007	,003						,38
W-6x8,5	522446	,07	1,24	,19	,032	,023	,010	,042	,190	,150	,022	,380	,007	,002						,36
W-6x8,5	522454	,10	1,20	,18	,027	,027	,010	,043	,100	,130	,078	,360	,006	,003						,37
W-6x8,5	522462	,07	1,16	,19	,021	,034	,009	,038	,130	,160	,030	,350	,006	,002						,34
W-6x8,5	522464	,11	1,26	,24	,033	,015	,010	,042	,160	,130	,013	,360	,009	,001						,40
W-6x8,5	522470	,10	1,19	,20	,030	,025	,009	,039	,140	,130	,020	,340	,005	,003						,37
W-6x8,5	522472	,07	1,19	,17	,023	,034	,010	,039	,090	,140	,026	,370	,007	,001						,34
W-6x8,5	522476	,10	1,20	,18	,029	,015	,010	,042	,220	,250	,028	,350	,005	,003						,40
W-6x8,5	522483	,09	1,18	,18	,020	,034	,010	,038	,070	,160	,019	,260	,006	,004						,34
W-6x8,5	522513	,08	1,19	,19	,029	,025	,000	,042	,120	,120	,010	,280	,007	,003						,34
W-6x8,5	522516	,08	1,23	,17	,034	,024	,000	,041	,220	,190	,029	,450	,007	,003						,38
W-6x8,5	522517	,08	1,22	,17	,021	,028	,000	,042	,150	,140	,024	,360	,007	,003						,36
W-6x9	522492	,08	1,18	,19	,019	,039	,000	,038	,080	,120	,017	,290	,003	,002						,33
W-6x9	522498	,07	1,15	,17	,028	,034	,000	,041	,140	,190	,036	,360	,005	,004						,34
W-6x9	522502	,08	1,19	,21	,026	,018	,009	,038	,160	,200	,032	,380	,003	,003						,37
W-6x9	522508	,10	1,14	,17	,028	,022	,000	,040	,120	,180	,025	,370	,007	,003						,37
W-8x10	292706	,14	,73	,16	,010	,010	,010	,020	,110	,140	,030	,600	,000	,000						,34
W-8x13	292708	,11	,70	,16	,020	,030	,000	,020	,160	,190	,030	,600	,000	,000						,32
W-8x15	292709	,00	,00	,00	,000	,000	,000	,000	,000	,000	,000	,000	,000	,000						,00

MATERIAL SIZE	CÓLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES				FLEXIÓN POR CHOQUE IMPACT TEST				
		ReH MPa	Rm MPa	A% L0=5,65VS0	Doblado 180°	°C	KV300	V1 j.	V2 j.	V3 j.
B11	B08	C11	C12	C13	C14	C15	C16	C17	C18	C19
W-6x12	522447	441	542	31,4						
W-6x12	522448	412	549	30,8						
W-6x12	522449	415	536	34,3						
W-6x12	522450	439	548	32,2						
W-6x12	522457	430	538	31,						
W-6x16	522532	423	544	32,1						
W-6x8,5	522446	406	541	30,8						
W-6x8,5	522454	436	538	29,9						
W-6x8,5	522462	416	544	32,8						
W-6x8,5	522464	419	544	31,7						
W-6x8,5	522470	427	545	30,3						
W-6x8,5	522472	437	549	30,3						
W-6x8,5	522476	436	547	30,6						
W-6x8,5	522483	437	545	30,6						
W-6x8,5	522513	433	546	30,1						
W-6x8,5	522516	406	549	30,						
W-6x8,5	522517	451	549	29,5						
W-6x9	522492	433	537	31,7						
W-6x9	522498	429	547	31,1						
W-6x9	522502	420	530	32,2						

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MATERIAL SIZE	CÓLADA HEAT	PROPIEDADES MECANICAS MECHANICAL PROPERTIES				FLEXIÓN POR CHOQUE IMPACT TEST					
		ReH MPa	Rm MPa	A% L0=5.65VS0	Doblado 180°	°C	KV300	V1 j.	V2 j.	V3 j.	Media j.
<i>a11</i>	<i>a00</i>	<i>c11</i>	<i>c12</i>	<i>c13</i>	<i>c50</i>	<i>c03</i>	<i>c40/11</i>	<i>c12</i>			<i>c13</i>
W-8x9	522508	425	550	32,6							
W-8x10	292706	403	538	32,9							
W-8x13	292708	382	515	33,5							
W-8x15	292709										

24 análisis

Z01

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


Miguel Centagoya