

COMPANIA ESPAÑOLA DE LAMINACION, S.L.  
 OFICINAS: c/Ferralla,12 Pol.Ind. "SAN VICENTE"  
 08755 Castellbisbal (BARCELONA)  
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CELSA  
 BARCELONA



## TEST CERTIFICATE EN 10.204:2004, Type 3.1.

Standard: CSA G40.21-04 50W/ASTM  
 A572-07 GR50/A992-06A  
 Type: A992  
 St. Tol.: ASTM A6/AGM-08  
 Our Ref: 02258485  
 (B49-31801)

Customer: FORTACERO S.A. DE C.V.  
 Blvd. Carlos Salinas de Gortari km. 9.8 Apodaca  
 N.L.  
 66600 MEXICO  
 Mexico

Destination: FORTACERO S.A. DE C.V.  
 CIF LO TUXPAN  
 Mexico

Delivery number: 201061339  
 Order number : 10456021  
 Your order : 908037MX

### CHEMICAL ANALYSIS

### MECHANICAL PROPERTIES

Material (L=Length)	Heat Number	C	Mn	Si	S	P	Cr	Ni	Co	Sr	Mo	V	Nb	Al	N	CEV	Yield Str.	Ten- sile Str.	Yield/ Tens. Str.	Elong. R in.
		%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	MFA	MFA	%	%
GRADO 50 W10X8X45L.40fts(12.2m)	CE195921	0.110	1.130	0.180	0.016	0.024	0.120	0.100	0.300	0.020	0.016	0.027	0.001	0.002	0.0100	0.356	368	530	0.732	29.0
GRADO 50 W21X6.5X44 L.40fts(12.2m)	CE195921	0.110	1.130	0.180	0.016	0.024	0.120	0.100	0.300	0.020	0.016	0.027	0.001	0.002	0.0100	0.358	407	530	0.768	29.6
GRADO 50 W21X6.5X44 L.40fts(12.2m)	CE195921	0.110	1.130	0.180	0.016	0.024	0.120	0.100	0.300	0.020	0.016	0.027	0.001	0.002	0.0100	0.358	410	533	0.769	27.9
GRADO 50 W21X6.5X44 L.40fts(12.2m)	CE195922	0.110	1.160	0.180	0.009	0.021	0.120	0.100	0.320	0.020	0.018	0.029	0.002	0.002	0.0098	0.365	409	531	0.768	29.1
GRADO 50 W21X6.5X44 L.40fts(12.2m)	CE195923	0.100	1.150	0.170	0.013	0.017	0.110	0.100	0.330	0.020	0.018	0.028	0.001	0.002	0.0100	0.352	395	525	0.752	28.0
GRADO 50 W21X6.5X44 L.40fts(12.2m)	CE195923	0.100	1.150	0.170	0.013	0.017	0.110	0.100	0.330	0.020	0.018	0.028	0.001	0.002	0.0100	0.352	406	531	0.765	27.8
GRADO 50 W21X6.5X44 L.40fts(12.2m)	CE195924	0.110	1.170	0.180	0.019	0.020	0.130	0.100	0.310	0.019	0.016	0.027	0.002	0.002	0.0101	0.368	402	532	0.756	29.6
GRADO 50 W21X6.5X44 L.40fts(12.2m)	CE195924	0.110	1.170	0.180	0.019	0.020	0.130	0.100	0.330	0.019	0.016	0.027	0.002	0.002	0.0101	0.368	406	536	0.757	27.8
GRADO 50 W21X6.5X44 L.40fts(12.2m)	CE195925	0.110	1.140	0.170	0.021	0.024	0.140	0.090	0.310	0.019	0.015	0.028	0.002	0.002	0.0096	0.363	408	531	0.768	29.6
GRADO 50 W21X6.5X44 L.40fts(12.2m)	CE195925	0.110	1.140	0.170	0.021	0.024	0.140	0.090	0.310	0.019	0.015	0.028	0.002	0.002	0.0096	0.363	411	534	0.770	30.1
GRADO 50 W16X10.25X67 L.40fts(12.2m)	CE195999	0.090	1.100	0.200	0.028	0.014	0.120	0.100	0.330	0.019	0.016	0.028	0.001	0.003	0.0103	0.335	386	502	0.769	31.2

- Product suitable for galvanizing: 0.14<=Si<=0.25 & P<=0.035.
- Intended use: construction and civil engineering.
- Durability: not determined.
- Regulated substances: not determined

Castellbisbal, 19.06.2015  
 Juan Diego Martínez Gálvez  
 Quality Control Manager

IPB 10x8x67.0

IPB 21x6.5x65.5

IPB 16x10.25x99.9