



# VILLACERO

## MILL TEST REPORT

**PRODUCT:** 1 1/2" C80 ASTM A-53-A / NMX B-177  
**FINISHING:** TUBO BARNIZADO EXTREMO LISO

CUSTOMER: PLESA ANAHUAC Y CIAS. S.A. DE C.V.

SHIPPING DATE: 01103113

SPORT PLATAFORM: AUTOTRANSPORTES PABLO DANIEL

INVOICE: FT-14854

ORDER: 1200113459

TRANSPORT/ TRANSPORTE:

MANUFACTURER/ PLANTA : LAMINA Y PLACA COMERCIALS.A DE C.V.  
 DIEGO DIAZ DE BERLANGA, NO. 1002 SUR  
 SAN NICOLAS DE LOS GARZA, NUEVO LEON, MEXICO

I HEREBY CERTIFY THAT THE PRODUCT ACCOMPLISHED WITH THE SPECIFICATION TO THE INVOICE AND/ OR REMISSION ( DATABASE OF SYSTEM ).

ESTE PRODUCTO FUE FABRICADO BAJO LA NORMA QUE SE DESCRIBE HACIENDO CUMPLIR LOS REQUERIMIENTOS DE LA ESPECIFICACION (BASE DE DATOS DEL SISTEMA).

PROCESS: HFV

MANUFACTURING INFORMATION/ INFORMACION DE MANUFACTURA							DIMENSIONS (DIMENSIONES)		
DATE	SHIFT	OPER	ORDER OP #	GRADE	MANUFACT PROCESS	HEATTREATMENT	OUTSIDE DIAMETER (In)	Thickness (In)	LENGTH (Mts)
15/11/12	1	COM	498	A	E	NO	1900"	.200"	6.40

### ONLINE TESTS (PRUEBAS DE CAMPO)

HEAT NUMBER (COLADA)	HYDROSTATIC TEST (PSI)	DELIVERY CONDITION	TIME (Sec.)	NON-DESTRUCTIVE TEST (PND)	METALLOGRAPHY TEST	BENDING TEST	FLATTENING TEST	VISUAL INSPECTION
12K21770007	1000	AS ROLLED	S	OK	N/A	N/A	OK	OK

### CHEMICAL ANALYSIS (ANALISIS QUIMICOS)/ MECHANICAL PROPERTIES (PROPIEDADES MECANICAS)

HEAT NUMBER (COLADA)	%C	%Mn	%P	%S	%Si	%Cr	%Mo	%Ni	%Cu
12K21770007	0.0900	0.3520	0.0060	0.0120	0.0170	0.0000	0.0000	0.0000	0.0000
%Nb	%Sn	%Ti	%V		YIELD ST (PSI)	UT (PSI)	% ELONG	HARDNESS (HRb)	CARBON EQUIVALENT %
0.0000	0.0000	0.0000	0.0000		51373	55148	19.200	74	N/A

### CHARPY TEST (PRUEBA CHARPY)

HEAT IDENT NUM	ABSORBED ENERGY (FT-LB)			AVERAGE	TEMPERATURE TEST °C
	1	2	3		
12K21770007	N/A	N/A	N/A	N/A	N/A

NOTE: THE SUM OF THE NIOBIUM, VANADIUM AND TITANIUM CONCENTRATIONS SHALL BE

NOTA: LA SUMA DE LA CONCENTRACION DE NIOBIO, VANADIO Y TITANIO NO DEBE SER

≤ 0.15%

≤ 0.15%

I HAVE PERSONAL KNOWLEDGE AS TO ACCURACY OF THE ABOVE INFORMATION, AND HAVE AUTHORITY TO SIGN ON BEHALF OF THE COMPANY.

TENGO EL CONOCIMIENTO Y AUTORIZACION EN NOMBRE DE LA COMPAÑIA PARA AVALAR ESTA INFORMACION.

SINCERELY

ING. JOSE GILBERTO GUZMAN RUIZ

QUALITY ASSURANCE MANAGER