



# VILLACERO

## MILL TEST REPORT

PRODUCT: 2" C80 ASTM A-53-A / NMX B-177

FINISHING: TUBO BARNIZADO CON EXTREMO LISO

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

SHIPPING DATE: 04/07/19

INVOICE: FT-42155

PURCHASE ORDER: 1200332032

TRANSPORT/ TRANSPORTE:

**AUTOTRANSPORTES PABLO DANIEL**

MANUFACTURER/ PLANTA : LAMINA Y PLACA COMERCIAL S.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: HF<sup>w</sup>

MANUFACTURING INFORMATION/ INFORMACION DE MANUFACTURA							DIMENSIONS (DIMENSIONES)		
DATE	SHIFT	OPER	ORDER OP #	GRADE	MANUFACT PROCESS	HEAT TREATMENT	OUTSIDE DIAMETER MM (IN)	Thickness MM (IN)	LENGT MTS (FT)
14/01/19	1	COM	O-025	A	E	N/A	2.375"	0.218"	6.40

ONLINE TESTS (PRUEBAS DE CAMPO)									
HEAT NUMBER (COLADA)	HYDROSTATIC TEST BAR (PSI)	DELIVERY CONDITION	TIME (Sec.)	NON-DESTRUCTIVE TEST (PND)	METALLOGRAPHY TEST	BENDING TEST	FLATTENING TEST	VISUAL INSPECTION	
187954	2514	AS ROLLED	5	OK	N/A	N/A	OK	OK	

CHEMICAL ANALYSYS (ANALISIS QUIMICOS)/ MECHANICAL PROPERTIES (PROPIEDADES MECANICAS)									
HEAT NUMBER (COLADA)	%C	%Mn	%P	%S	%Si	%Cr	%Mo	%Ni	%Cu
187954	0.1800	0.8500	0.0120	0.0070	0.1300	0.0000	0.0000	0.0000	0.0000
	%Nb	%Sn	%Ti	%V	YIELD ST MPA (PSI)	UT MPA (PSI)	% ELONG	HARDNESS (HRb)	CARBON EQUIVALENT %
0.0010	0.0000	0.0030	0.0010		54555	75306	40.000	78	N/A

CHARPY TEST (PRUEBA CHARPY)					
HEAT IDENT NUM	ABSORBED ENERGY MTS-KG (FT-LB)			AVERAGE	TEMPERATURE TEST °C
	1	2	3		
187954	N/A	N/A	N/A	N/A	N/A

NOTE: THE SUM OF THE NIOBIUM, VANADIUM AND TITANIUM CONCENTRATIONS SHALL BE  $\leq$  0.15%

NOTA: LA SUMA DE LA CONCENTRACION DE NIOBIO, VANADIO Y TITANIO DEBE SER  $\leq$  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. Erick Maximino Dávila García

QUALITY ASSURANCE MANAGER