



### MILL TEST REPORT

PRODUCT: 1 1/2" 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: 20/11/19

INVOICE: FT-43135

PURCHASE ORDER: 1200342557

TRANSPORT/ TRANSPORTE: RAMIRO LOPEZ RIVERA  
 MANUFACTURER/ PLANTA : LAMINA Y PLACA COMERCIAL S.A DE C.V.  
 RAW MATERIAL MAKER/FABRICANTE MATERIA PRIMA:AHMSA MÉXICO  
 DIEGO DIAZ DE BERLANGA, NO. 1002 SUR  
 SAN NICOLAS DE LOS GARZA, NUEVO LEON, MEXICO

THIS CERTIFICATE IS ISSUED ACCORDING TO EN 10204 3.1  
 I HEREBY CERTIFY THAT THE PRODUCT ACCOMPLISHED WITH THE SPECIFICATION TO THE INVOICE AND/ OR REMISSION ( DATABASE OF SYSTEM ).  
 ESTE CERTIFICADO ES EMITIDO SEGÚN EN 10204 3.1  
 ESTE PRODUCTO FUE FABRICADO BAJO LA NORMA QUE SE DESCRIBE HACIENDO CUMPLIR LOS REQUERIMIENTOS DE LA ESPECIFICACION (BASE DE DATOS DEL SISTEMA).

PROCESS: HFW

MANUFACTURING INFORMATION/ INFORMACION DE MANUFACTURA					DIMENSIONS (DIMENSIONES)		
DATE	ORDER (No. OP)	GRADE	MANUFACTURER PROCESS	HEAT TREATMENT	OUTSIDE DIAMETER MM (IN)	THICKNESS MM (IN)	LENGTH MTS (FT)
24/10/19	O-274	A	E	N/A	1.900"	0.200"	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
391896	1814	AS ROLLED	5	EDDY CURRENT	FREE MARTENSITE	N/A	OK	OK

CHEMICAL ANALYSIS (ANALISIS QUIMICOS)/ MECHANICAL PROPERTIES (PROPIEDADES MECANICAS)									
HEAT NUMBER (COLADA)	%C	%Mn	%P	%S	%Si	%Cr	%Mo	%Ni	%Cu
391896	0.1700	0.8400	0.0170	0.0040	0.0580	0.0200	0.0060	0.0230	0.0400
%Nb	%Sn	%Ti	%V		YIELD ST MPA (PSI)	TENSILE ST MPA (PSI)	% ELONG	HARDNESS (HRb)	CARBON EQUIVALENT %
0.0020		0.0020	0.0030		51851	71446	39.000	76	N/A

CHARPY TEST (PRUEBA CHARPY)					
HEAT IDENT NUM	ABSORBED ENERGY MTS-KG (FT-LB)			AVERAGE	TEMPERATURE TEST °C
	1	2	3		
391896	N/A	N/A	N/A	N/A	N/A

NOTE: THE SUM OF THE NIOBIUM, VANADIUM AND TITANIUM CONCENTRATIONS SHALL BE ≤ 0.15%  
 NOTA: LA SUMA DE LA CONCENTRACION DE NIOBIO, VANADIO Y TITANIO DEBE SER ≤ 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 INFORMACIÓN.

SINCERELY

Ing. Erick Maximino Dávila García

QUALITY ASSURANCE MANAGER