



**MATERIAL TEST REPORT - QUALITY MANAGEMENT SYSTEM**  
FORZA STEEL - PRODUCTION FACILITY :

Carretera Salinas Victoria K.m. 2 s/n Salinas Victoria, Nuevo León, México C.P. 65500 Tel: +52 (51) 1958-3780

Packing List	0	Cod (Code):	FPD-PR-01-06
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CUSTOMER (Cliente) PURCHASE ORDER (Orden de Compra) DELIVERY (Remisión) DATE (Fecha) REFERENCE NUMBER (No. Referencia)

PLESA ANAHUAC Y CIAS, S.A DE C.V. 29731 5045048 28/04/2020 28042020-11841

PIPE TYPE PRODUCT (Tipo de Producto)	FORZA WORK ORDER (OIF)	SIZE (Diámetro)	WALL THICKNESS (Espesor)	HEAT (No. Colada)	SPECIFICATI ON (Especificación Normal)	GRADE (Grado)	LENGTH (Longitud)		MASS (Peso Unitario)		MASS PER METER (Peso Lineal kg x metros)	HYDROSTATIC TEST (Prueba Hidrostática (psi))	SPECIAL REQUIREMENTS (Requerimientos especiales)	TUBE NUMBER (No. Piezas)
							Metros	Pies	Lbs	Kg				
ERW	OIF 2007	8.625	0.322	SP03374	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	4
ERW	OIF 2065	8.625	0.322	1822907	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	4
ERW	OIF 2065	8.625	0.322	1833555	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2068	8.625	0.322	AB8136	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2068	8.625	0.322	AB8181	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	16
ERW	OIF 2068	8.625	0.322	AB8182	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2068	8.625	0.322	AB8183	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2068	8.625	0.322	AB8184	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2068	8.625	0.322	AB8185	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2068	8.625	0.322	AB8187	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	28
ERW	OIF 2068	8.625	0.322	AB8188	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	12
ERW	OIF 2068	8.625	0.322	AB8189	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	10
ERW	OIF 815	8.625	0.322	SP00430	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 854	8.625	0.322	SP00433	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	4
ERW	OIF 966	8.625	0.322	D18703294	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2

2068-44-3A,815-48-24B,2068-96-15B,2068-96-17B,2068-95-6B,2068-97-10A,2068-97-6B,2068-96-13A,2068-96-17A,2068-94-5A,815-48-24A,2068-97-6A,2068-93-14A,2068-97-10B,2068-97-13A,2068-96-11B,2068-45-17B,2068-97-3A,2068-98-3A,2068-17B,2068-97-7A,2068-43-12A,2068-44-4B,854-24-17A,2068-41-9B,2068-96-14A,2068-96-12A,2068-96-15A,2068-44-3B,2068-43-12B,2068-98-11B,2068-96-13B,2068-97-5B,854-16-14B,2068-96-12B,2068-94-3A,2068-94-6A,2068-96-10A,2068-41-9A,2068-97-11B,2068-94-8B,2068-97-3B,2068-45-17A,2068-95-6A,2068-98-2A,2068-43-13A,2068-43-16B,2068-97-4B,2068-98-2B,2068-97-5B,854-16-14B,2068-96-11A,2068-44-4A,2068-125-3B,2007-22-13A,2068-96-18A,2007-18-10A,2068-97-5A,2068-96-10B,854-16-14A,2007-18-10B,2068-98-3B,2068-43-6A,2068-94-7B,2068-43-15A,2068-43-6B,2068-43-16A,2068-96-14B,2068-93-16A,2068-96-14B,2068-45-14A,2068-93-16A,2068-96-11A,2068-44-4A,2068-125-3B,2007-22-13A,2068-96-18A,2007-18-10A,2068-94-5B,2068-43-15B,2068-97-12B,966-83-16B,2068-97-6A,2068-45-14B,2068-94-6B,2068-97-13B,2068-93-14B,2007-22-13B,2065-47-20A,2068-94-7A,854-20-24B,2068-43-14B,2068-125-3A,2068-43-13B,2068-13B-16A,2068-122-9A,2068-11-1A,2065-47-20B,2065-23-12A,2068-11-11B,2068-83-16A,2065-23-12B,2068-122-9B,2068-43-14A,2068-13B-16B,854-20-24A,2068-94-6A,2068-96-18B,2068-32-16B,2068-97-7B,2068-97-4A

**Chemical Analyses (Análisis Químico)**

Heat (Colada)	C	Si	Mn	P	S	V	Cr	Cu	Ni	Mo	MB		Elongation (%) (Elongación)	Pruebas No Destructivas UT N10	
											Yield Strength (KSI) (Límite elástico)	Tensile Strength (KSI) (Última tensión)			Tensile Strength (KSI) (Última Tensión)
SP03374	0.0696	0.195	0.969	0.0126	0.0018	0.002	0.024	0.012	0.007	0.002	63.20	75.60	71.50	36	ACCEPTED
1822907	0.053	0.210	0.940	0.012	0.002	0.004	0.010	0.010	0.021	0.000	69.70	79.00	72.50	34	ACCEPTED
1833555	0.052	0.210	0.990	0.009	0.002	0.004	0.010	0.010	0.015	0.000	66.40	76.10	72.60	37	ACCEPTED
AB8136	0.051	0.025	0.728	0.019	0.003	0.002	0.144	0.308	0.117	0.032	64.30	73.90	79.10	39	ACCEPTED
AB8181	0.035	0.014	0.712	0.023	0.004	0.004	0.137	0.285	0.108	0.032	62.70	77.70	77.70	42	ACCEPTED
AB8182	0.046	0.010	0.698	0.023	0.005	0.005	0.132	0.357	0.129	0.022	62.70	77.80	81.70	41	ACCEPTED
AB8183	0.040	0.016	0.707	0.021	0.004	0.004	0.149	0.335	0.116	0.029	57.30	77.40	77.40	44	ACCEPTED
AB8184	0.043	0.019	0.730	0.017	0.004	0.003	0.106	0.293	0.102	0.027	59.80	72.10	76.50	42	ACCEPTED
AB8185	0.043	0.019	0.705	0.017	0.003	0.005	0.134	0.299	0.101	0.033	60.60	72.00	73.90	42	ACCEPTED
AB8187	0.067	0.051	0.739	0.022	0.004	0.004	0.129	0.264	0.100	0.034	64.20	73.00	76.40	42	ACCEPTED
AB8188	0.040	0.022	0.705	0.022	0.002	0.004	0.162	0.269	0.091	0.030	60.90	72.90	75.20	42	ACCEPTED
AB8189	0.040	0.022	0.705	0.022	0.002	0.004	0.162	0.269	0.091	0.030	60.90	72.90	75.20	42	ACCEPTED
D17607605	0.181	0.118	0.722	0.026	0.007	0.007	0.022	0.014	0.0038	0.0038	51.80	68.40	68.30	28	ACCEPTED
SP00430	0.0702	0.181	0.984	0.0104	0.0015	0.001	0.024	0.018	0.011	0.0020	61.60	74.00	76.70	30	ACCEPTED
SP00433	0.0661	0.200	0.984	0.0104	0.0015	0.001	0.018	0.018	0.011	0.0020	61.60	74.00	76.70	33	ACCEPTED
D18703294	0.161	0.157	0.294	0.016	0.006	0.0048	0.024	0.0013	0.0065	0.033	54.50	68.30	74.31	30	ACCEPTED



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	Edition (Edición):	Rev: 4
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CUSTOMER (Cliente)  
**PLESA ANAHUAC Y CIAS, S.A DE C.V.**

PURCHASE ORDER (Orden de Compra)  
**29731**

DELIVERY (Remisión)  
**5045048**

DATE (Fecha)  
**28/04/2020**

REFERENCE NUMBER (No. Referencia)  
**28042020-11841**

PIPE TYPE PRODUCT (Tipo de producto)	FORZA WORK ORDER (OIF)	SIZE (Diámetro)	WALL THICKNESS (Espesor)	HEAT (No. Colada)	SPECIFICATI ON (Especificación Normal)	GRADE (Grado)	LENGTH (Longitud)		MASS (Peso Unitario)		MASS PER MEIER (Peso Lineal kg x metros)	HYDROSTATIC TEST (Prueba Hidrostatica (psi))	SPECIAL REQUIREMENTS (Requerimientos especiales)	TUBE NUMBER (No. Piezas)
							Metros	Pies	Lbs	Kg				
ERW	OIF 2007	8.625	0.322	SP03374	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	4
ERW	OIF 2055	8.625	0.322	1822907	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2055	8.625	0.322	1833555	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2068	8.625	0.322	AB8136	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2068	8.625	0.322	AB8181	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	16
ERW	OIF 2068	8.625	0.322	AB8182	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2068	8.625	0.322	AB8183	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 2068	8.625	0.322	AB8184	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	22
ERW	OIF 2068	8.625	0.322	AB8185	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	28
ERW	OIF 2068	8.625	0.322	AB8187	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	12
ERW	OIF 2068	8.625	0.322	AB8188	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	10
ERW	OIF 2068	8.625	0.322	AB8189	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 815	8.625	0.322	D17607605	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2
ERW	OIF 854	8.625	0.322	SP80430	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	4
ERW	OIF 854	8.625	0.322	SP80433	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	4
ERW	OIF 866	8.625	0.322	D18703294	ASTM A53	B	6.20	20.34	568.35	257.80	42.29	1594	Barnizado	2

Chemical Analyses (Analisis Quimico)

Tub	C	Si	Mn	P	S	V	Cr	Cu	Ni	Mo	Yield Strength (KSI) (Limite elastico)	Mechanical Test (Pruebas mecanicas)		Elongation (%) (Elongacion)	Pruebas No Destructivas UT N10
												Tensile Strength (KSI) (Ultima tension)	Tensile Strength (KSI) (Ultima Tension)		
1822907	0.0696	0.195	0.969	0.0126	0.0018	0.002	0.024	0.012	0.007	0.002	63.20	75.60	71.50	36	ACCEPTED
1833555	0.052	0.210	0.990	0.009	0.002	0.004	0.010	0.010	0.015	0.000	69.70	79.00	72.50	34	ACCEPTED
AB8181	0.035	0.025	0.728	0.019	0.003	0.004	0.010	0.010	0.015	0.000	66.40	76.10	72.60	37	ACCEPTED
AB8181	0.035	0.014	0.712	0.023	0.004	0.004	0.144	0.308	0.117	0.035	64.30	73.90	79.10	39	ACCEPTED
AB8183	0.046	0.010	0.698	0.023	0.005	0.005	0.137	0.265	0.108	0.022	63.50	73.00	77.70	42	ACCEPTED
AB8183	0.040	0.016	0.707	0.021	0.004	0.004	0.132	0.357	0.129	0.022	62.70	77.80	81.70	41	ACCEPTED
AB8184	0.043	0.019	0.707	0.021	0.004	0.004	0.149	0.335	0.116	0.029	57.30	73.60	77.40	41	ACCEPTED
AB8185	0.043	0.019	0.705	0.017	0.003	0.003	0.106	0.293	0.102	0.027	59.80	72.10	78.50	42	ACCEPTED
AB8187	0.067	0.051	0.739	0.022	0.004	0.004	0.129	0.264	0.100	0.034	64.20	73.00	76.40	42	ACCEPTED
AB8188	0.040	0.022	0.705	0.024	0.002	0.004	0.162	0.289	0.103	0.021	60.90	72.90	75.20	42	ACCEPTED
AB8189	0.040	0.020	0.722	0.020	0.002	0.007	0.149	0.273	0.103	0.021	63.60	72.40	77.80	43	ACCEPTED
D17607605	0.161	0.118	0.291	0.011	0.0076	0.0005	0.022	0.014	0.015	0.0039	51.80	68.40	69.30	28	ACCEPTED
SP80430	0.0702	0.181	0.394	0.0102	0.0018	0.001	0.024	0.014	0.012	0.003	66.00	74.00	76.70	30	ACCEPTED
SP80433	0.0691	0.200	0.984	0.0104	0.0015	0.001	0.018	0.018	0.011	0.0020	61.60	75.30	78.20	33	ACCEPTED
D18703294	0.161	0.157	0.294	0.016	0.006	0.0048	0.024	0.013	0.0065	0.033	54.50	68.30	74.31	30	ACCEPTED