



TSI METAL INDUSTRIES LLC

P.O.BOX: 31165, ICAD-II, ABU DHABI, U.A.E.

MANUFACTURER TEST CERTIFICATE

ORIGINAL



CUSTOMER : SUNBELT GROUP L.P.
1990 POST OAK BLVD.SUITE 950
HOUSTON,TEXAS 77056
P.O. NO : 25.472

DATE : 23-JUL-2022
MTC NO. : TSI/EXP/22-0479
EXP NO. : 22-063
INV NO. : TSIA/EX/22/0077

WE CERTIFY THAT THE MATERIAL DESCRIBED BELOW FULLY CONFORMS TO ASTM A53. THE CHEMICAL COMPOSITION & MECHANICAL TESTING CONFORMS TO ASTM A751 & ASTM A370 RESPECTIVELY. PLEASE REFER TO ASTM A53 FOR DETAILS OF SPECIFICATION REQUIREMENTS.

MATERIAL DESCRIPTION - PRIME NEWLY PRODUCED ERW STEEL PIPE CONFORMING TO ASTM A53-20 GRADE-A

S.No.	Item	Outside Diameter	Thickness	Length	Weight	Quantity	Surface Finish	Ends	Batch No	Heat No	Heat Treatment - 540°C Min	Eddy Current Test	Flattening/Bend Test (At 0° and 90°)	Hydro Test Pressure	Avg. Zinc Coating
		Inch	Inch	Feet	lbs/FT	Pcs							33%/66%/Full/8*D	PSI	Gm/m ²
1	1" X SCH-40	1.315	0.133	21	1.68	1260	Black	T & C	D023/220222	2148229	NA	OK	OK	1200	N/A
2	1" X SCH-40	1.315	0.133	21	1.68	300	Black	Plain End	1012/220328	D884192	NA	OK	OK	1200	N/A
3	1½" X SCH-40	1.660	0.140	21	2.27	924	Black	Plain End	1015/220406	2152015	NA	OK	OK	1200	N/A
4	1½" X SCH-40	1.900	0.145	21	2.72	792	Black	Plain End	2015/220330	2152013	NA	OK	OK	1200	N/A
5	3" X SCH-40	3.500	0.216	21	7.58	1064	Galvanized	Bevel End	2017/220406	2152300	NA	OK	OK	2220	584
6	3½" X SCH-40	4.000	0.226	21	9.12	504	Galvanized	Bevel End	2023/220509	2150282	NA	OK	OK	1900	589

Chemical Composition / Analysis (MAX)

Heat No	C%	Mn%	P%	S%	Cr%	Cu%	Mo%	Ni%	V%	(Cu+Ni+Cr+Mo+V)%	Mechanical Properties (MIN)			
Spec. Requirement	0.250	0.950	0.0500	0.0450	0.4000	0.4000	0.1500	0.4000	0.0800	1.0000	Specimen	YS-MPa	UTS-MPa	% EL
2148229	0.082	0.367	0.0083	0.0072	0.0180	0.0350	0.0120	0.0260	0.0010	0.0920	L/B	329	398	32
D884192	0.061	0.280	0.0120	0.0102	0.0140	0.0095	0.0030	0.0160	0.0020	0.0445	L/B	294	381	34
2152015	0.060	0.373	0.0098	0.0085	0.0210	0.0350	0.0070	0.0210	0.0010	0.0850	L/B	314	389	31
2152013	0.065	0.362	0.0160	0.0076	0.0160	0.0270	0.0070	0.0250	0.0020	0.0770	L/B	341	404	33
2152300	0.102	0.540	0.0090	0.0044	0.0100	0.0050	0.0000	0.0110	0.0020	0.0280	L/B	336	409	30
2150282	0.081	0.446	0.0068	0.0053	0.0110	0.0220	0.0030	0.0130	0.0020	0.0510	L/B	322	393	36

IT IS FURTHER CERTIFIED THAT THE ABOVE MATERIAL CONFORMS TO THE DIMENSIONAL AND WEIGHT TOLERANCE OF THE SPECIFICATION ASTM A53.

TOLERANCE : FOR ≤48.3 OD ±0.40MM & >48.3MM OD ±1%, THICK. -12.5%, WEIGHT ± 10%. WORKMANSHIP : CONFORMS TO ASTM A53 & P.O., BEVEL ANGLE: 30°- 35° WHEREVER APPLICABLE

ALL THE PIPES WERE CONTINUOUSLY STENCILED WITH MARKING AS UNDER:

(UL) LISTED EX26998 TIGER/MADE IN UAE ASTM A53 NPS -- INCH SCH-40 GR.A TYPE E NDE LENGTH -- FEET HEAT NO. RWP 300PSI HTP ---- PSI <FM>

ABBREVIATION: YS: Yield Strength; UTS: Ultimate Tensile Strength; EL: Elongation; GL: Gauge Length; L: Longitudinal; T: Transverse; B: Body Tensile; W: Weld Tensile



NARENDRA KUMAR
MANAGER (QUALITY)