



# TSI METAL INDUSTRIES LLC

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

## MANUFACTURER TEST CERTIFICATE



CUSTOMER :

DATE : 10-SEP-2024  
MTC NO. : TSI/EXP/24-0505  
EXP NO. : 24-077  
INV NO. : TSIA/EX/24/0141

P.O. NO : 26.151

WE CERTIFY THAT THE MATERIAL DESCRIBED BELOW FULLY CONFORMS TO ASTM A53/ASME SA53. 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/ASME SA53 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 <sup>2</sup>
1	1" X SCH-40	1.315	0.133	21	1.68	1800	Galvanized	T & C	2049/240813	24B400871	NA	OK	OK	1200	592
2	1" X SCH-40	1.315	0.133	21	1.68	180	Black	T & C	2055/240828	2329218	NA	OK	OK	1200	N/A
3	1" X SCH-40	1.315	0.133	21	1.68	60	Black	T & C	2049/240816	24B400840	NA	OK	OK	1200	N/A
4	1" X SCH-40	1.315	0.133	21	1.68	5460	Galvanized	Plain End	2049/240812	24B400871	NA	OK	OK	1200	584
5	1" X SCH-40	1.315	0.133	21	1.68	60	Galvanized	Plain End	2049/240812	24MD0429	NA	OK	OK	1200	582
6	1-1/4" X SCH-40	1.660	0.140	21	2.27	3864	Black	Plain End	1029/240709	24400156	NA	OK	OK	1200	N/A
7	1-1/4" X SCH-40	1.660	0.140	21	2.27	3095	Galvanized	Plain End	1029/240706	24MD0430	NA	OK	OK	1200	583
8	1-1/4" X SCH-40	1.660	0.140	18	2.27	532	Galvanized	T & C	1029/240706	24MD0430	NA	OK	OK	1200	583
9	1-1/2" X SCH-40	1.900	0.145	21	2.72	36	Galvanized	Plain End	2046/240730	23103017	NA	OK	OK	1200	579
10	1-1/2" X SCH-40	1.900	0.145	21	2.72	1008	Galvanized	Plain End	2046/240730	24400156	NA	OK	OK	1200	589

#### Chemical Composition / Analysis (MAX)

#### Mechanical Properties (MIN)

Heat No	C%	Mn%	P%	S%	Cr%	Cu%	Mo%	Ni%	V%	(Cu+Ni+Cr+Mo+V)%	Specimen	YS-MPa	UTS-MPa	% EL
Spec. Requirement	0.250	0.950	0.0500	0.0450	0.4000	0.4000	0.1500	0.4000	0.0800	1.0000	--	205	330	Table X4.1
24B400871	0.140	0.500	0.0140	0.0100	0.0080	0.0040	0.0010	0.0040	0.0000	0.0170	L/B	346	454	32
2329218	0.147	0.923	0.0097	0.0038	0.0110	0.0080	0.0010	0.0100	0.0040	0.0340	L/B	360	474	30
24B400840	0.140	0.510	0.0170	0.0080	0.0100	0.0050	0.0010	0.0040	0.0010	0.0210	L/B	363	471	30
24B400871	0.140	0.500	0.0140	0.0100	0.0080	0.0040	0.0010	0.0040	0.0000	0.0170	L/B	346	454	32
24MD0429	0.170	0.350	0.0140	0.0090	0.0300	0.0100	0.0000	0.0100	0.0000	0.0500	L/B	338	461	33
24400156	0.049	0.400	0.0120	0.0060	0.0080	0.0040	0.0000	0.0050	0.0000	0.0170	L/B	322	403	34
24MD0430	0.170	0.330	0.0120	0.0090	0.0200	0.0100	0.0000	0.0100	0.0000	0.0400	L/B	368	474	29
24MD0430	0.170	0.330	0.0120	0.0090	0.0200	0.0100	0.0000	0.0100	0.0000	0.0400	L/B	368	474	29
23103017	0.061	0.172	0.0170	0.0040	0.0060	0.0020	0.0000	0.0040	0.0000	0.0120	L/B	284	391	34
24400156	0.049	0.400	0.0120	0.0060	0.0080	0.0040	0.0000	0.0050	0.0000	0.0170	L/B	319	402	33

IT IS FURTHER CERTIFIED THAT THE ABOVE MATERIAL CONFORMS TO THE DIMENSIONAL AND WEIGHT TOLERANCE OF THE SPECIFICATION ASTM A53/ASME SA53.

TOLERANCE : FOR ≤48.3 OD ±0.40MM & >48.3MM OD ±1%, THICK. -12.5%, WEIGHT ± 10%. WORKMANSHIP : CONFORMS TO ASTM A53/ASME SA53 & 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/ASME SA53 NPS -- INCH SCH-40 GR.A/B TYPE E NDE LENGTH -- FEET HEAT NO. .... RWP 300PSI HTP ---- PSI <FM> COUNTRY OF MELT & POUR : INDIA.

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



EX26998



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ACTIVE FIRE PROTECTION - PRODUCT CERTIFICATION



NARENDRA KUMAR  
MANAGER (QUALITY)