



**TSI METAL INDUSTRIES LLC**  
P.O. BOX: 31165, ICAD-II, ABU DHABI, U.A.E.  
**MANUFACTURER TEST CERTIFICATE**



CUSTOMER : \_\_\_\_\_ DATE : 22-JAN-2024  
MTC NO. : TSI/EXP/24-007  
EXP NO. : 23-363  
P.O. NO : ZD.002 LUI-1/1 INV NO. : TSIA/EX/24/0003

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%/65%/Full/8" D	PSI	Gm/m <sup>2</sup>
1	1-1/4" X SCH-40	1.660	0.140	24	2.27	378	Galvanized	Plain End	1047/231229	23102764	NA	OK	OK	1200	578
2	2" X SCH-40	2.375	0.154	21	3.68	156	Galvanized	Bevel End	2086/231228	23A08149	NA	OK	OK	2300	583
3	4" X SCH-40	4.500	0.237	21	10.80	10	Galvanized	Bevel End	3085/231224	23A08303	NA	OK	OK	1900	582
4	4" X SCH-40	4.500	0.237	21	10.80	100	Galvanized	Bevel End	3085/231227	23A08304	NA	OK	OK	1900	585
5	4" X SCH-40	4.500	0.237	24	10.80	10	Galvanized	Bevel End	3085/231227	23A08304	NA	OK	OK	1900	588
6	6" X SCH-40	6.625	0.280	21	19.34	49	Galvanized	Bevel End	3086/231230	23A08301	NA	OK	OK	1500	597

**Chemical Composition / Analysis (MAX)**

Heat No	C%	Mn%	P%	S%	Cr%	Cu%	Mo%	Ni%	V%	(Cu+Ni+Cr+Mo+V)%	Specimen	YS-MPa	UTS-MPa	% EL
					0.4000	0.4000	0.1500	0.4000	0.0800	1.0000	-	205	330	Table X4.1
Spec. Requirement	0.250	0.950	0.0500	0.0450	0.0090	0.0040	0.0000	0.0040	0.0000	0.0170	L/B	362	447	30
23102764	0.048	0.505	0.0110	0.0070	0.0090	0.0040	0.0000	0.0040	0.0000	0.0170	L/B	362	447	30
23A08149	0.160	0.370	0.0120	0.0010	0.0200	0.0100	0.0000	0.0100	0.0000	0.0400	L/B	336	435	32
23A08303	0.160	0.370	0.0120	0.0010	0.0200	0.0100	0.0000	0.0100	0.0000	0.0400	L/B	314	463	32
23A08304	0.160	0.380	0.0140	0.0100	0.0200	0.0100	0.0000	0.0100	0.0000	0.0400	L/B	347	459	31
23A08304	0.160	0.390	0.0140	0.0100	0.0200	0.0100	0.0000	0.0100	0.0000	0.0400	L/B	347	459	31
23A08301	0.160	0.330	0.0090	0.0020	0.0100	0.0100	0.0000	0.0100	0.0000	0.0300	L/B	336	455	30

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% TO +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 GRA/B TYPE E NDE LENGTH - FEET HEAT NO. .... RWP 300PSI HTP ---- PSI <FM>  
COUNTRY OF MELT & POUR : CHINA/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 - FREEDOM CERTIFICATION



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MANAGER (QUALITY)