

ASTM A53 TYPE E GRADE A PIPE

SCOPE

Covers black and hot-dipped galvanized electric-resistance welded Grade A pipe. Pipe is intended for mechanical and pressure applications and is acceptable for ordinary uses in steam, water, gas and air lines. Pipe is suitable for welding and threading. Produced to the latest revision of ASTM A53A/53M, Federal Specification WW-P404 and ASME B36.10M.

HOT-DIP GALVANIZED

The average weight of zinc coating shall be not less than 1.8 oz. per sq. ft. of surface (inside and outside).

When galvanized pipe is bent or otherwise fabricated to a degree which causes zinc coating to stretch or compress beyond the limit of elasticity, some flaking of the coating may occur.

HYDROSTATIC AND NONDESTRUCTIVE ELECTRIC TESTING

Hydrostatic inspection test pressures for plain-end pipe are listed in Table X 2.2 of the A53/A53M specification. Test pressures shall be maintained for a minimum of five seconds.

Nondestructive electric testing of the weld seam is not a requirement on lengths of ERW pipe NPS 1-1/2 and smaller.

CHEMICAL REQUIREMENTS

Composition, max. %

<u>Carbon</u>	<u>Manganese</u>	<u>Phosphorus</u>	<u>Sulfur</u>
.25	.95	.05	.045

<u>*Copper</u>	<u>*Nickel</u>	<u>*Chromium</u>	<u>*Molybdenum</u>	<u>*Vanadium</u>
.50	.40	.40	.15	.08

*The combination of these five elements shall not exceed 1.00%.

TENSILE REQUIREMENTS

Tensile Strength, min.	48 000 psi
Yield Strength, min.	30 000 psi
Elongation in 2"	Refer to A53 Table x 4.1

BENDING TEST (COLD)

Degree of Bend	<u>For NPS 2 and under</u> 90°
Diameter of Mandrel	12 x outside pipe diameter

FREQUENCY OF TESTS

Tensile tests are required on one length of pipe from each lot of 500 lengths or fraction thereof for each size.

END FINISH

Plain End: End finish shall be at the option of the manufacturer.

Threaded:	To ANSI Standard B 1.20.1
Couplings:	To ASTM Standard A865

DIMENSIONS AND WEIGHTS

BLACK PLAIN END					
NPS	OD Inches	Sch 40		Sch 80	
		Nominal Wall	Weight/ Lb. Ft	Nominal Wall	Weight/ Lb. Ft
GRADE A					
1/4	.540	.088	.43	.119	.54
3/8	.675	.091	.57	.126	.74

PERMISSIBLE VARIATIONS IN WALL THICKNESS

Minimum wall thickness at any point shall not be more than 12.5% under nominal wall thickness specified.

PERMISSIBLE VARIATIONS IN OUTSIDE DIAMETER

Pipe shall not vary more than +/- 0.016" from the standard specified.

PERMISSIBLE VARIATIONS IN WEIGHT PER FOOT.

Pipe shall not vary more than +/- 10% from the standard specified.

PRODUCT MARKING

Each bundle tag securely attached to the bundle shall show the manufacturer, the grade of pipe (ASTM A53), the kind of pipe E for Electric Resistance Welded, A for Grade A, the size, XS for extra strong, and length. Bar coding is acceptable as a supplementary identification method.

All information contained herein is accurate as known at the time of publication.

Wheatland reserves the right to change product specifications without notice and without incurring obligations.

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