



## 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. %

Carbon	Manganese	Phosphorus	Sulfur	
.25	.95	.05	.045	
*Copper	*Nickel	*Chromium	*Molybdenum	*Vanadium
.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)

	For NPS 2 and under
Degree of Bend	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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# WHEATLAND TUBE COMPANY

**SUBMITTAL DATA**

## ASTM A 53 TYPE E GRADE B PIPE

### SCOPE

Covers black and hot-dipped galvanized electric-resistance welded Grade B 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, threading and grooving. Produced to the latest revision of ASTM A 53A/ 53M.

### MANUFACTURE

The weld seam shall be heat treated after welding to a minimum of 1400 °F or be otherwise processed in such a manner that no untempered martensite remains.

### HOT-DIPPED 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/A 53M specification. Test pressures shall be maintained for a minimum of five seconds.

Nondestructive electric testing of the weld seam is required on each length of ERW pipe NPS 2 and larger.

### CHEMICAL REQUIREMENTS

Composition, max. %

Carbon	Manganese	Phosphorus	Sulfur	
.30	1.20	.05	.045	
*Copper	*Nickel	*Chromium	*Molybdenum	*Vanadium
.40	.40	.40	.15	.08

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

### TENSILE REQUIREMENTS

Tensile Strength, min.	80 000 psi
Yield Strength, min.	35 000 psi
Elongation in 2"	Refer to A 53 Table x 4.1

### BENDING TEST (COLD)

Degree of Bend	90°
Diameter of Mandrel	12 x outside pipe diameter

### FLATTENING TEST

As a test for ductility of the weld for pipe 2-1/2" NPS and larger, position the weld at 0° and alternately at 90° to the direction of force and flatten until the OD is 2/3 of the original outside diameter. No cracks shall occur along the inside or outside surface of the weld.

### FREQUENCY OF TESTS

Tensile tests are required on one length of pipe from each lot of 500 lengths or fraction thereof for each size. Refer to A 53 specification for frequency of flattening tests.

### END FINISH

Plain End: NPS 2 and larger, STD and XS weights: ends beveled to angle of 30°, +5°, -0° with a root face of 1/16" ± 1/32"

Threaded:

To ANSI Standard B 1.20.1

Couplings:

To ASTM Standard A 865

### DIMENSIONS AND WEIGHTS

#### PERMISSIBLE VARIATIONS IN WALL THICKNESS

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

STANDARD (SCH. 40) BLACK PLAIN END			
Nominal Size	O.D. Inches	Nominal Wall	Weight/ Lb. Ft
2"	2.375	.154	3.66
2-1/2"	2.875	.203	5.80
3"	3.500	.216	7.58
4"	4.500	.237	10.88
5"	5.563	.258	14.63
6"	6.625	.280	18.99
8"	8.625	.322	28.58

#### PERMISSIBLE VARIATIONS IN OUTSIDE DIAMETER

Pipe NPS 2 and larger shall not vary more than + 1% from the standard specified.

EXTRA STRONG (SCH.80) BLACK PLAIN END			
Nominal Size	O.D. Inches	Nominal Wall	Weight/ Lb. Ft
2"	2.375	.218	5.03
2-1/2"	2.875	.276	7.67
3"	3.500	.300	10.26
4"	4.500	.337	15.00

### PERMISSIBLE VARIATIONS IN WEIGHT PER FOOT.

Pipe shall not vary more than ± 10% from the standard specified.

### PRODUCT MARKING

Each length of pipe is continuously stenciled to show the manufacturer, the grade of pipe (ASTM A 53), the kind of pipe E for Electric Resistance Welded, B for Grade B, 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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