



Mittal Canada Pipe Mill

SUBMITTAL DATA

ASTM A53 Type F, Grade A Pipe

SCOPE

Covers black and hot-dipped galvanized furnace-butt welded (Continuous 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. Mittal's ASTM A53 is UL, ULC listed and FM approved, sizes 1" to 4" S40, for use in Fire Sprinkler Pipe applications. Pipes is suitable for welding, threading, grooving and bending. Pipe is not intended for flanging. Produced to latest revisions of ASTM A53/A 53M, and ASME B36.10M

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 TESTING

Hydrostatic test pressures for plain-end pipe are indicated below. ( in PSI )

Table with 3 columns: NPS, S40, S80. Rows show test pressures for various pipe sizes from 1/2 to 4 inches.

END FINISH

Plain end:

NPS 1/2 and smaller: Unless otherwise specified on order, end finish shall be at the option of the manufacturer.

NPS 2 and larger: STD and S80: ends are beveled top a angle of 30°, + 5° - 0° with a root face of 1/16 ± 1/32

Threaded: To ANSI Standard B1.20.1

Couplings: To ASTM Standard A865

CHEMICAL REQUIREMENTS

Composition, max %

Carbon: .30, Manganese: 1.20, Phosphorus: .05, Sulfur: .045, \*Copper: .40, \*Nickel: .40

\*Chromium: .40, \*Molybdenum: .15, \*Vanadium .08

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

TENSILE REQUIREMENTS

Tensile Strength: 48000 psi minimum

Yield Strength: 30000 psi minimum

Elongation: Refer to ASTM A53 table X4.1

FLATTENING TEST

NPS 2 1/2 and greater: As a test for quality of the weld, position of the weld at 90 from the direction of force and flatten until the OD is 1/4 of the original outside diameter. No cracks shall occur along the inside or outside surface of the weld.

DIMENSIONS AND WEIGHTS ( Black plain end )

Table with 6 columns: NPS, OD inches, S40 wall inches, S40 weight Lb/Ft, S80 wall inches, S80 weight Lb/Ft. Rows show dimensions and weights for pipe sizes from 1/2 to 4 inches.

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 NPS 1 1/2 and under: ± .016 inch

Pipe NPS 2 and over: ± 1%

PERMISSIBLE VARIATIONS IN WEIGHT PER FOOT

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

PRODUCT MARKING

Each length of pipe 1/2 NPS and larger is continuously stenciled to show the manufacturer, the grade of pipe (ASTM A53), the kind of pipe (F for Continuous Weld, A for Grade A), the size (S40 for nominal, S80 for extra strong), length, and lot number. When required, stencil markings indicate UL, ULC listing and FM approved for sizes 1 inch to 4 inch for use in Fire Sprinkler Pipe applications. Bar coding is acceptable as a supplementary identification number.

All information contained herein is accurate as know at the time of publication. Mittal reserves the right to change product specifications without notice and without incurring obligations (February 26, 2007)

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