SureThread™

ASTM A53, Type F, Grade B—**Submittal Data Sheet**

Scope
Covers black and hot-dip galvanized continuous weld Grade B pipe. Pipe is intended for mechanical and pressure applications and is acceptable for ordinary uses in steam, water, gas and air lines. Wheatland ASTM A53 is UL® Listed and FM Approved for NPS sizes 1–4 for fire sprinkler applications. Pipe is not intended for flanging. Produced to ASTM A53/A53M (latest revision). All Wheatland black and galvanized pipe (½–6 NPS) is approved for drinking water usage.

Hot-dip Galvanized
The average weight of zinc coating shall not be less than 1.8 ounces per square foot of surface (inside and outside). When galvanized pipe is bent or otherwise fabricated to a degree that causes zinc coating to stretch or compress beyond the limit of elasticity, some flaking of the coating may occur.

HYDROSTATIC TESTING

Hydrostatic testing pressures for plain-end pipe are listed below.

NPS	STANDARD WEIGHT—PSI	EXTRA-STRONG WEIGHT—PSI
½–1	1,500	1,500
1¼– 1½	2,000	2,000
2–3	2,500	2,500
3½–4	2,800	2,800

End Finish
Plain End:
NPS 1½ and smaller: Unless otherwise specified on order, end finish shall be at the option of the manufacturer.
NPS 2 and larger: For STD and Schedule 80 weights, ends should be 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 A865

CHEMICAL REQUIREMENTS

Composition, maximum percentage.

CARBON	MANGANESE	PHOSPHORUS	SULFUR	
0.30	1.20	0.05	0.045	

COPPER	NICKEL	CHROMIUM	MOLYBDENUM	VANADIUM
0.40	0.40	0.40	0.15	0.08

Tensile Requirements
The combination of these five elements shall not exceed 1%.

Tensile Strength, min.	60,000 psi
Yield Strength, min.	35,000 psi
Elongation in 2"	Refer to A53 Table x 4.1 (latest revision—ASTM A53/A53M)

BENDING TEST (COLD)—NPS 2 & UNDER

	DEGREE OF BEND	DIAMETER OF MANDREL
Standard	90°	12 x outside of pipe diameter
Close Coiling	90°	8 x outside of pipe diameter

FLATTENING TEST—NPS 2½ AND GREATER

As a test for quality of the weld, position the weld at 0° and at 90° from the direction of force and flatten until the OD is less than two thirds of the original outside diameter. No cracks should occur along the inside or outside surface of the weld.

DIMENSIONS & WEIGHTS: BLACK PLAIN END

		Sch. 40		Sch. 80	
NOMINAL SIZE	OD INCHES	WALL INCHES	WEIGHT lb./ft.	WALL INCHES	WEIGHT lb./ft.
½	0.840	0.109	0.85	0.147	1.09
¾	1.050	0.113	1.13	0.154	1.48
1	1.315	0.133	1.68	0.179	2.17
1¼	1.660	0.140	2.27	0.191	3.00
1½	1.900	0.145	2.72	0.200	3.63
2	2.375	0.154	3.66	0.218	5.03
2½	2.875	0.203	5.80	0.276	7.67
3	3.500	0.216	7.58	0.300	10.26
3½	4.000	0.226	9.12	0.318	12.52
4	4.500	0.237	10.80	0.337	15.00

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

NPS	1½ and under	± 0.016"
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 NPS ½ and larger is continuously stenciled to show the manufacturer, the grade of pipe (ASTM A53), the kind of pipe (F for continuous weld, B for Grade B), the size (Schedule 80 for extra strong) and length. Stencil markings indicate UL Listing and FM Approval for sizes NPS 1–4 for use in fire sprinkler pipe applications. Bar coding is acceptable as a supplementary identification method. Wheatland stencils "SureThread" on the pipe to ensure that you are receiving our SureThread product.

SUBMITTAL INFORMATION

PROJECT: _____ CONTRACTOR: _____ DATE: _____

ENGINEER: _____ SPECIFICATION REFERENCE: _____ SYSTEM TYPE: _____

LOCATIONS: _____ COMMENTS: _____

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