Specification For Low Pressure Fiberglass Line Pipe and Fittings

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FOREWORD

a. This specification is under the jurisdiction of the American Petroleum Institute Subcommittee on Fiberglass and Plastic Tubulars.
b. The purpose of this specification is to provide standards for low pressure fiberglass line pipe and fittings for use in conveying produced fluids including oil, gas, nonpotable water and mixtures thereof in the oil and gas producing industries.
c. Nothing in this specification should be interpreted as indicating a preference by the committee for any material or process or as indicating equality between the various materials or processes. In the selection of materials and processes, the purchaser must be guided by his experience and by the service for which the pipe is intended.
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f. Appendix F, "Marking Requirements for Monogram Licensees," has been intentionally removed. See API Specification Q1 (Annex A) or the API website for information pertaining to the API Monogram Program and use of the API Monogram on applicable products.
g. Suggested revisions are invited and should be submitted to the standardization manager, American Petroleum Institute, 200 Massachusetts Avenue, NW, Suite 1100, Washington, DC 20001.

Attention Users of this Publication: Portions of this publication have been changed from the previous edition. In some cases the changes are significant, while in other cases the changes reflect minor editorial adjustments. Since the document was significantly re-formatted from the previous edition, no attempt was made to indicate the location of changes with bar notations.

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1 Scope

1.1 COVERAGE

This specification covers filament wound (FW) and centrifugally cast (CC) fiberglass line pipe and fittings for pipe in diameters up to and including 24 in. in diameter and up to and including 1000 psig cyclic operating pressures. In addition, at the manufacturer's option, the pipe may also be rated for static operating pressures up to 1000 psig. It is recommended that the pipe and fittings be purchased by cyclic pressure rating. The standard pressure ratings range from 150 psig to 300 psig in 50 psig increments, and from 300 psig to 1000 psig in 100 psig increments, based on either cyclic pressure (ref. 5.5.1) or static pressure (ref. 5.5.2). Quality control tests, hydrostatic mill tests, dimensions, weights, material properties, physical properties, and minimum performance requirements are included.

1.2 UNIT CONVERSION

A decimal/inch system is the standard for the dimensions shown in this specification. Nominal sizes will continue to be shown as fractions. For the purposes of this specification, the fractions and their decimal equivalents are equal and interchangeable. Metric conversions are described in Appendix G.

1.3 SUGGESTIONS FOR ORDERING API LOW PRESSURE FIBERGLASS LINE PIPE AND FITTINGS

1.3.1 In placing orders for line pipe to be manufactured in accordance with API Specification 15LR, the purchaser may specify the following on the purchase order:

Specification	API Specification 15LR
Quantity	
Pressure Rating	Par. 1.1
Process of Manufacture	Par. 3.1
Resin System	Par. 3.2
Nominal Size or Outside Diameter	Table 1 and 2
Length	Par. 7.1.2
Pipe Ends	Par. 8.1
Delivery Date and Shipping Instructions	

1.3.2 Attention is called to the following paragraphs which may require agreement between the purchaser and the manufacturer:

Service Factors	Par 5.4
Disposition of Rejected Product	Appendix H, Par. H.4

1.3.3 The purchaser should also state on the purchase order his requirements concerning the following stipulations which are optional with the purchaser:

Degree of Cure	Par. 4.4
Physical Properties	Par. 5.1
Static Pressure Rating	Par. 5.5.2
Pipe Drawings	Par. 8.2
Purchaser Inspection	Par. 8.6

2 References

2.1 REFERENCES STANDARDS

This specification includes by reference, either in total or in part, the following API, industry and government standards. Where a specific edition of a standard is referenced, it was the latest edition available for review by the API Subcommittee on Fiberglass and Plastic Tubulars at the time this edition was printed. Subsequent revisions are subject to API subcommittee review prior to acceptance as a referenced standard to this specification.

API

Std 5B	*Specification for Threading, Gaging, and Thread Inspection of Casing, Tubing, and Line Pipe Threads, Latest Edition*
RP 5B1	*Recommended Practice for Threading, Gauging, and Thread Inspection of Casing, Tubing, and Line Pipe Threads, Latest Edition*

ANSI[1]

B16.5	*Pipe Flanges and Flanged Fittings NPS 1/2 Through NPS 24, 1996*

ASTM[2]

C 582	*Standard Specification for Contact-Molded Reinforced Thermosetting Plastic (RTP) Laminates for Corrosion Resistant Equipment, 1995*
D 1599	*Test Method for Short-Time Hydraulic Failure Pressure of Plastic Pipe, Tubing and Fittings, 1995*
D 1694	*Specification for Threads for Reinforced Thermosetting Resin Pipe, 1995*
D 2105	*Test Method for Longitudinal Tensile Properties of Reinforced Thermosetting Plastic Pipe and Tube, 1990*

[1]American National Standards Institute, 1430 Broadway, New York, New York 10018.
[2]ASTM, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428.