High-pressure Fiberglass Line Pipe

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Foreword

This specification is under the jurisdiction of the American Petroleum Institute Subcommittee on Fiberglass and Plastic Tubulars. The purpose of this specification is to provide standards for high-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.

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High-pressure Fiberglass Line Pipe

1 Scope

1.1 Coverage

This specification was formulated to provide for the availability of safe, dimensionally, and functionally interchangeable high-pressure fiberglass line pipe with a pressure rating from 500 lbf/in.^{2} to 5000 lbf/in.^{2} (3.45 MPa to 34.5 MPa), inclusive, in 250 lbf/in.^{2} (1.72 MPa) increments for pipes ≤ than NPS 12 inches and 100 lbf/in.^{2} (0.69 MPa) increments for pipes > than NPS 12 inches. This specification is limited to mechanical connections and the technical content provides requirements for performance, design, materials, tests and inspection, marking, handling, storing, and shipping. Critical components are items of equipment having requirements specified in this document.

This specification is applicable to rigid pipe components made from thermosetting resins and reinforced with glass fibers. Typical thermosetting resins are epoxy, polyester, vinyl ester, and phenolic. Thermoplastic resins are excluded from the scope of this specification. Any internal liners applied shall be made also from thermosetting resins. Fiberglass line pipe for use in low-pressure systems are covered in API Spec 15LR.

This specification covers fiberglass pipe utilized for the production of oil and gas. Specific equipment covered by this specification is high-pressure line pipe and couplings, fittings, flanges, and reducers and adapters.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. However, not all documents listed may apply to your specific needs. The body of the standard should be referred to for how these documents are specifically applied.

API Specification 5B, *Specification for Threading, Gauging, and Thread Inspection of Casing, Tubing, and Line Pipe Threads*

API Specification 5B, *Specification for Threading, Gauging, and Thread Inspection of Casing, Tubing, and Line Pipe Threads*, Fifteenth Edition, 2008

API Recommended Practice 5B1, *Gauging and Inspection of Casing, Tubing and Line Pipe Threads*

API Recommended Practice 15TL4, *Recommended Practice for Care and Use of Fiberglass Tubulars*

API Specification Q1, *Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry*

ANSI B16.5 [1], *Pipe Flanges and Flanged Fittings*

ASTM D1599 [2], *Standard Test Method for Short-Time Hydraulic Pressure of Plastic Pipe, Tubing and Fittings*

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1 American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, New York 10036, www.ansi.org.
2 ASTM International, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428, www.astm.org.