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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 46086-2025

**Fully-wrapped glass fibre reinforced composite cylinder with a
high-density polyethylene liner for the storage of liquefied
petroleum gas**

液化石油气高密度聚乙烯内胆玻璃纤维全缠绕气瓶

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

1 Scope

This document specifies the types and models of liquefied petroleum gas high-density polyethylene liner glass fiber fully wrapped gas cylinders (hereinafter referred to as "gas cylinders") and basic parameters, materials, design, manufacture, test methods, as well as inspection rules, marking, packaging, transportation and storage requirements.

This document is applicable to the design and manufacture of nominal working pressure 2.1MPa, nominal volume not more than 50L, and operating ambient temperature not less than -40°C and not higher than 60°C, and used for refillable gas cylinders containing liquefied petroleum gas.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the latest version (including all amendments) applies to this document.

In this document.

GB/T 192 Basic profile of common thread GB/T 196 Basic dimensions of common threads
GB/T 197 General thread tolerances GB/T 228.1 Tensile tests on metallic materials - Part 1:
Room temperature test methods GB/T 1033.1 Plastics - Determination of density of
non-cellular plastics - Part 1: Immersion method, pycnometer method and titration method
GB/T 1040.1 Determination of tensile properties of plastics Part 1: General GB/T
1040.2-2022 Plastics - Determination of tensile properties - Part 2: Test conditions for
moulded and extruded plastics GB/T 1458 Test method for mechanical properties of
annular specimens of filament-wound reinforced composites GB/T 1690 Test method for
resistance of vulcanized rubber or thermoplastic rubber to liquids GB/T 1843-2008
Determination of Izod impact strength of plastics GB/T 3682.1-2018 Plastics
Thermoplastics Melt Mass Flow Rate (MFR) and Melt Volume Flow Rate (MVR)
Determination of part 1. standard method GB/T 3934 Technical requirements for common
thread gauges GB/T 4423 Copper and copper alloy drawn bars GB/T 4612 Determination
of epoxy equivalent of plastic epoxy compounds GB 7512 Liquefied petroleum gas cylinder
valve GB/T 7690.3 Test methods for reinforcing yarns - Part 3: Determination of breaking
strength and elongation at break of glass fibers GB/T 9251 Gas cylinders hydrostatic test
method GB/T 9252 Gas cylinder pressure cycle test method GB/T 9789 Sulfur dioxide
corrosion test for metals and other inorganic coatings under normal condensation
conditions GB/T 10125 Artificial atmosphere corrosion test Salt spray test GB 11174
Liquefied petroleum gas GB/T 12137 Test method for gas cylinder airtightness GB/T 13005
Gas Cylinder Terminology GB/T 15385 Gas cylinder hydraulic burst test method