

D03 SUBCOMMITTEE SCOPES

D03.01 on Collection and Measurement of Gaseous Samples

Scope: is responsible for developing specifications, practices, techniques and guidelines for obtaining, handling, conditioning, and volumetric measurement of Gaseous Hydrocarbon Samples. Its primary focus is directed toward basic sampling techniques and sample conditioning/handling, but also works with other ASTM D03 Subcommittees to facilitate the development of sampling standards for specific applications in the gaseous fuels industry.

D03.02 on Gaseous Fuels Specifications

Scope: D03.02 is responsible for developing and maintaining standard specifications for gaseous fuels. This subcommittee interfaces with relevant ASTM D03 subcommittees on issues related to gaseous fuel specifications. Supports the development of practices, guides, and test methods needed for gaseous fuel specifications.

D03.03 on Determination of Heating Value and Relative Density of Gaseous Fuels

Scope: D03.03 is responsible for developing specifications, practices, techniques, and guidelines for measuring both the heating value and relative density of gaseous hydrocarbon samples. Its primary focus is directed toward basic analytical techniques such as gas chromatography, calorimetry, and stoichiometric combustion, but also works with other ASTM D03 subcommittees to facilitate the development of related standards for specific applications in the gaseous fuels industry.

D03.06 on Analysis of Constituents in Gaseous Fuels

Scope: D03.06 is responsible for developing specifications, practices, and guidelines relating to the offline analysis of constituents in gaseous fuels. This includes, but is not limited to, compositional analysis of gaseous fuels, analysis of contaminants or impurities, and analysis of compounds added to gaseous fuels for the purpose of leak detection (odorants). D03.06 is split into subsections based on the analytical technique utilized in the standard.

D03.06.01 on Analysis of Major Constituents by Gas Chromatography

Scope: D03.06.01 is responsible for Analysis of major constituents in gaseous fuels utilizing gas chromatography (GC).

D03.06.02 on Analysis of Minor Constituents by Gas Chromatography

Scope: D03.06.02 is responsible for Analysis of minor constituents in gaseous fuels utilizing chromatographic instrumentation including gas chromatography (GC) and ion chromatography (IC). This includes all hyphenated GC techniques such as GC-MS, GC-ICPMS, and GC-IMS.

D03.06.03 on Analysis by Spectroscopy

Scope: D03.06.03 is responsible for Analysis of constituents in gaseous fuels utilizing spectroscopic techniques. This includes Atomic Absorption, Atomic Fluorescence, and Ultraviolet Fluorescence.

D03.06.04 on Analysis by Colorimetric Techniques

Scope: D03.06.04 is responsible for Analysis of constituents in gaseous fuels utilizing colorimetric techniques. This includes the use of colorimetry, titration, sensing tape, and length-of-stain tubes.

D03.06.05 on Analysis by Miscellaneous Techniques

Scope: D03.06.05 is responsible for Analysis of constituents in gaseous fuels utilizing miscellaneous techniques. This includes the use of a chilled mirror, electrochemical sensors, and olfactory techniques. Standards in which instrumentation options span multiple sub-groups also falls under D03.06.05.

D03.08 on Thermophysical Properties

Scope: D03.08 is responsible for maintaining and developing standards, specifications, practices, and guidelines relating to the thermophysical properties of gaseous fuels such as hydrogen, methane, ethane, propane, and butane. The operational definition used within this sub-committee's scope is that thermophysical properties are all material properties affecting the transfer and storage of heat, that vary with the state variables temperature, pressure, and composition, and of other relevant variables, without altering the material's chemical composition. These properties can include thermal conductivity and diffusivity, heat capacity, thermal expansion and thermal radiative properties, as well as viscosity and mass and thermal diffusion coefficients, speed of sound, surface and interfacial tension in fluids.

D03.12 on On-Line and At-Line Analysis of Gaseous Fuels

Scope: Is responsible for developing specifications, practices, and guidelines relating to on-line and at-line analysis of gaseous fuels. This subcommittee works particularly closely with subcommittee D03.01, Collection and measurement of Gaseous Fuels, on issues related to sample collection from fuel lines.

D03.14 on Hydrogen and Fuel Cells

Scope: Hydrogen and Fuel Cells is responsible for developing standards, practices, and guidelines relating to hydrogen used in energy generation or as feed gas to low, medium and high temperature fuel cells. This subcommittee is also responsible for developing standards, practices, and guidelines relating to other gaseous fuels used in low, medium and high temperature fuel cells. This subcommittee works particularly closely with subcommittee D03.01, Collection and Measurement of Gaseous Fuels, on issues related to sample collection.

D03.90 Executive

Scope: To give the committee executive direction.

D03.92 on Terminology and Editorial

Scope: To provide technically based, clear and standardized nomenclature, terms, definitions, abbreviations, acronyms, and symbols essential to the field of effort of Committee D03 on gaseous fuels. To determine and direct or promote the usage of the proper or preferred terminology and definitions including abbreviations, acronyms, and symbols. To explain the meaning of technical terms for the benefit of those not conversant with them and eliminate redundancies, harmonize variances, clarify meanings, and resolve misinterpretations. To harmonize the format, nomenclature, units, and other matters, as well as possible with those of D03 Subcommittees, other standards developing organizations, stakeholders, and contemporary commercial practice. To assist other D03 Subcommittees in framing definitions in a format consistent with the ASTM Form and Style Manual ([Blue Book](#)) for standards under their jurisdiction.

D03.93 on Long Range Planning

Scope: The purpose of subcommittee D03.93 is to address long term concerns within the gaseous fuels industry, anticipate future needs of ASTM D03 and provide a forum for discussions on the evolution of standards, protocols, and guidelines under D03 jurisdiction. In addition, the subcommittee on Long Range Planning is responsible for encouraging domestic and foreign users, vendors, and other interested persons to join the D03 committee. An important part of this latter function is outreach to affiliate organizations and other concerned parties. The D03.93 subcommittee also works with affiliates and other parties to bring standards used nationally and worldwide into harmony.

D03.94 on Awards

Scope: The Awards subcommittee is committed to ensuring that individuals and organizations contributing to activity within the ASTM D03 Committee on Gaseous Fuels are acknowledged by the membership and stakeholders within the gaseous fuels community.