

## 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.

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

Scope: Determination of Heating Value and Relative Density of Gaseous Fuels, is responsible for developing specifications, practices, techniques and guidelines for measuring both the heating value and relative density in 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.

### D03.05 on Determination of Special Constituents of Gaseous Fuels

Scope: D03.05 is responsible for creating test methods, practices and guides concerning the detection and measurement of special constituents in Gaseous fuels. Special constituents are chemical compounds in gaseous fuels that are not generally considered those which make a major contribution to calorific value. They can be contaminants (sulfur, water, etc.), diluents (CO<sub>2</sub> etc.), or compounds that are purposely placed in gaseous fuels for non-calorific reasons such as compounds added to gaseous fuels for the purpose of easy leak detection (odorants).

### D03.07 on Analysis of Chemical Composition of Gaseous Fuels

No scope available

### 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.

\* The UK's National Measurement Laboratory, "Thermal Metrology: Frequently Asked Questions"  
[http://www.npl.co.uk/thermal/faq\\_index.html#thermophysical%20properties](http://www.npl.co.uk/thermal/faq_index.html#thermophysical%20properties), 2004

### 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 D30.01, 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, specifications, 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, specifications, 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, Classification and Specifications

Scope: To provide technically based, clear and standardized nomenclature, definitions and specifications essential to the field of effort of Committee D03 on gaseous fuel. To develop standard specifications which adequately describe various gaseous fuel types for different applications using their composition and properties. To determine and direct or promote the usage of the proper or preferred terminology, definitions and specifications. 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 misinterpretation. To harmonize the format, nomenclature, units and other matters, as well as possible with those of other standards developing organizations, stakeholders, and contemporary commercial practice.

### 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

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