

## **Automotive liquefied petroleum gas components - Other than containers**

Automotive liquefied petroleum gas components -  
Other than containers

**EESTI STANDARDI EESSÖNA****NATIONAL FOREWORD**

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Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

<b>Käsitlusala:</b> This European Standard specifies the general design and testing requirements for all components, in automotive Liquefied Petroleum Gas (LPG) propulsion systems, which have a working pressure equal to or greater than 20 kPa	<b>Scope:</b> This European Standard specifies the general design and testing requirements for all components, in automotive Liquefied Petroleum Gas (LPG) propulsion systems, which have a working pressure equal to or greater than 20 kPa
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## Foreword

This document (EN 12806:2003) has been prepared by Technical Committee CEN /TC 286, "Liquefied petroleum gas equipment and accessories", the secretariat of which is held by NSAI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2003, and conflicting national standards shall be withdrawn at the latest by October 2003.

Annexes A and B are informative.

Annexes C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S and T are normative.

This document includes a Bibliography.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This European Standard specifies the general design and testing requirements for all components, in automotive Liquefied Petroleum Gas (LPG) propulsion systems, which have a working pressure equal to or greater than 20 kPa.

This European Standard also specifies the requirements for the Electric Control Unit (ECU), which is not subjected to pressure, and the gas-tight housing which has a working pressure below 20 kPa.

This European Standard excludes containers.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 549:1994, *Rubber materials for seals and diaphragms for gas appliances and gas equipment*.

EN 589, *Automotive fuels – LPG – Requirements and test methods*.

EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation* (ISO 228-1:2000).

EN ISO 1307:1998, *Rubber and plastic hoses for general-purpose industrial applications – Bore diameters and tolerances, and tolerances on length* (ISO 1307:1992).

EN ISO 1402, *Rubber and plastics hoses and hose assemblies – Hydrostatic testing* (ISO 1402:1994).

EN ISO 4080, *Rubber and plastics hoses and hose assemblies - Determination of permeability to gas* (ISO 4080:1991).

EN ISO 4672, *Rubber and plastics hoses -- Sub-ambient temperature flexibility tests* (ISO 4672:1997).

EN 60068-2-52, *Environmental testing – Part 2. Tests – Test Kb: Salt mist, cyclic (sodium chloride solution)* (IEC 60068-2-52:1996).

EN 60529:1991, *Degrees of protection provided by enclosures (IP code)* (IEC 60529:1989).

ISO 37, *Rubber, vulcanized or thermoplastic - Determination of tensile stress-strain properties*.

ISO 188, *Rubber, vulcanized or thermoplastic - Accelerated ageing and heat-resistance tests*.

ISO 1431-1, *Rubber, vulcanized or thermoplastic - Resistance to ozone cracking – Part 1: Static strain test*.

ISO 1436-1, *Rubber hoses and hose assemblies - Wire-braid-reinforced hydraulic types – Specification – Part 1: Oil-based fluid applications*.

ISO 1817, *Rubber, vulcanized - Determination of the effect of liquids*.

ISO 6957, *Copper alloys - Ammonia test for stress corrosion resistance*.

ISO 9227, *Corrosion tests in artificial atmospheres - Salt spray tests*.