



SLOVENSKI STANDARD
SIST-TS CEN/TS 16765:2015

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Oprema in pribor za utekočinjeni naftni plin (UNP) - Upoštevanje varstva okolja pri standardih CEN/TC 286

LPG equipment and accessories - Environmental considerations for CEN/TC 286 standards

Flüssiggas-Geräte und Ausrüstungsteile - Umweltgesichtspunkte für Normen des CEN/TC 286

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ICS:

13.020.01	Okolje in varstvo okolja na splošno	Environment and environmental protection in general
23.020.30	Tlačne posode, plinske jeklenke	Pressure vessels, gas cylinders

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TECHNICAL SPECIFICATION
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English Version

**LPG equipment and accessories - Environmental considerations
for CEN/TC 286 standards**

Équipements pour GPL et leurs accessoires -
Considérations environnementales pour les normes du
CEN/TC 286

Flüssiggas-Geräte und Ausrüstungsteile -
Umweltgesichtspunkte für Normen des CEN/TC 286

This Technical Specification (CEN/TS) was approved by CEN on 15 December 2014 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

	Page
Foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Environmental aspects to be considered for systematically addressing environmental issues	6
5 Design	6
6 Procurement	7
7 Production	9
7.1 General	9
7.2 Measures to reduce environmental impact	9
8 Customer information	9
9 Packaging	10
10 Transportation	10
11 Product operation and reuse	10
11.1 Durability of the product, maintenance and repair	10
11.2 Reconditioning and reuse of equipment	10
11.3 Inspection and testing	11
11.3.1 Water	11
11.3.2 Discharges to water	11
11.3.3 Emissions to air	12
11.3.4 Discharges to soil	12
12 End of life	12
Annex A (informative) Recycling symbols	13
Bibliography	15

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Foreword

This document (CEN/TS 16765:2015) has been prepared by Technical Committee CEN/TC 286 “Liquefied petroleum gas equipment and accessories”, the secretariat of which is held by NSAI.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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CEN/TS 16765:2015 (E)**Introduction**

Protection of the environment is a key political issue in Europe and elsewhere. Protection of the environment is taken in a very broad sense.

Provisions need to be restricted to a general guidance. Limit values are specified in national laws.

It is recommended that manufacturers develop an environmental management policy. For guidance see the EN ISO 14000- series.

It has been assumed in the drafting of this Technical Specification that the execution of its provisions is entrusted to appropriately qualified and experienced people.

Some of the environmental aspects also have an implication for occupational health and safety.

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1 Scope

Protection of the environment needs to be considered during the total life-cycle of a particular product, e.g. impact on the environment including expenditure of energy during all phases of its life-cycle, from mining of raw materials, production, testing, packaging, distribution, maintenance and use, end-of-life disposal and recycling of materials, etc.

This Technical Specification provides information on the environmental aspects of equipment and accessories produced for the LPG industry. The following are addressed:

- a) design;
- b) manufacture;
- c) packaging;
- d) use and operation; and
- e) disposal.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14717, *Welding and allied processes — Environmental check list*

3 Terms and definitions

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For the purposes of this document, the following terms and definitions apply.

3.1

environmental aspect

element of an organization's activities or products or services that can interact with the environment

Note 1 to entry: A significant environmental aspect has or can have a significant environmental impact.

3.2

environmental impact

change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects

3.3

life-cycle assessment

LCA

compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life-cycle

3.4

prevention of pollution

use of processes, practices, techniques, materials, products, services or energy to avoid, reduce or control (separately or in combination) the creation, emission or discharge of any type of pollutant or waste, in order to reduce adverse environmental impacts

CEN/TS 16765:2015 (E)

Note 1 to entry: Prevention of pollution can include source reduction or elimination, process, product or service changes, efficient use of resources, material and energy substitution, reuse, recovery, recycling, reclamation and treatment.

3.5 packaging
all items made of any material of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer

Note 1 to entry: In this report the goods are referred to as “packaged product” or just “product”, in order to distinguish it from the packaging.

4 Environmental aspects to be considered for systematically addressing environmental issues

There is a need to reduce the potential adverse impacts on the environment of a product that can occur during all stages of its life. The potential environmental impacts of products can be reduced by taking into account environmental issues.

The impact on the environment from the product life-cycle is caused by:

- depletion of resources; and
- pollution including, air emissions, effluent, waste materials and other releases.

Each of the aspects of the product life-cycle shall be examined in order to reduce these impacts on the environment, referred to as a life-cycle assessment. These include:

- design;
- procurement, raw material acquisition, recycling of materials;
- production and testing;
- packaging and distribution;
- maintenance and use; and
- end-of-life disposal, reuse or recycling.

Prevention of pollution can take many forms and can be incorporated at all stages of the product life-cycle. For example, hazardous, toxic or otherwise harmful substances and materials prescribed in product standards should be substituted by other less harmful substances and materials, whenever possible and feasible, as long as it can be demonstrated that at least an equivalent level of quality and safety can be provided and any applicable regulations do not impair such substitution.

5 Design

Product design is the strongest tool for avoiding potential environmental impacts at all stages of the product life-cycle. There are several approaches to product design that consider elements of resource conservation and prevention of pollution.

Manufacturers should develop an environmental management policy; for guidance see the EN ISO 14000-series.

The design of LPG equipment and accessories should take account of the following:

- procurement;
- minimizing the use of materials;
- efficient transport of the finished product;
- minimizing the environmental impact of in service maintenance; and
- minimizing the environmental impact of end of life disposal.

The LPG equipment and accessories shall be designed so that its use is straightforward with minimal complexity, reducing the risk of accidental misuse that could lead to adverse environmental impacts.

6 Procurement

The manufacturer should endeavour to acquire materials and components from suppliers who have a declared environmental policy, see EN ISO 14021, EN ISO 14024 and EN ISO 14025.

Table 1 provides recommendations related to the selection and acquisition of raw materials, pre-manufactured materials and components.

It is important in the procurement of raw materials that the depletion of resources is considered when choosing the particular materials for the product.

The manufacturer should endeavour to minimize wastage of material by selecting appropriately sized materials related to the finished parts required for manufacture. Unavoidable waste/scrap material should be recycled.

Materials reuse, ease of recycling and recovery are important factors that should influence the choice of materials.

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Materials should be chosen to ensure that end-of-life disposal is minimized.