

SPECIAL DETAILS

INSTRUCTIONS FOR USE FOR LPG/CORD/EN 1762/D HOSES

Below are the guidelines for the end user regarding the storage, use, inspection and maintenance, and identification of LPG/CORD/EN 1762/D hoses.

PRODUCT DESCRIPTION

The flexible hose type LPG/CORD/EN 1762/D is designed and manufactured in accordance with EN 1762 for the transfer of liquefied petroleum gas (LPG, in liquid or gaseous phase) and natural gas. It consists of a flexible rubber hose type LPG/CORD/EN 1762/D, equipped with crimped fittings with threaded or flanged ends.

For a detailed description of the construction and performance characteristics of the hose, please refer to the LPG/CORD/EN 1762/D product data sheet.

STORAGE

Rubber is naturally subject to changes in its physical and performance properties. These changes, which normally occur over time depending on the type of rubber used, may be accelerated by individual factors or by a combination of them. Reinforcement materials may also be negatively affected by improper storage. The following recommendations provide a set of precautions to minimize deterioration of stored hoses.

Storage duration

Storage time should be kept as short as possible by implementing a planned warehouse rotation. When long-term storage cannot be avoided, the user must carry out a thorough inspection of the hose before it is put into service if storage has exceeded two years, as prescribed by ISO 8331.

Temperature and humidity

The optimal temperature for storing rubber hoses ranges from 10°C to 25°C. They should not be exposed to temperatures above 40°C or below 0°C to avoid reducing hose life. When the temperature drops below -15°C, precautions must be taken during handling. Hoses must not be stored near heat sources or in conditions of high or low humidity. The relative humidity should preferably not exceed 65%.

Light

Hoses should be stored in dark areas, avoiding direct sunlight or intense artificial lighting. If the storage area has windows or glass openings, these must be shielded.

Oxygen and ozone

Hoses must be protected from air using suitable packaging or stored in closed containers. Ozone has a particularly aggressive effect on all rubber products; therefore, storage areas must not contain materials that generate ozone such as high-voltage electrical equipment, electric motors, or other devices capable of producing sparks or electrical arcs. Combustion gases and organic vapors should be excluded from storage areas as they can generate ozone through photochemical processes.

Contact with other materials

Hoses must not come into contact with solvents, fuels, greases, volatile chemicals, acids, disinfectants, or organic liquids in general. Direct contact with certain metals (e.g., manganese, iron, copper and its alloys) and their compounds can have damaging effects on some rubber types.

Heat sources

The temperature limits defined under "Light" must be respected. When this is not possible, a thermal shield must be installed at a distance of at least one meter.

Electric or magnetic fields

Storage areas must be free from variations in electric or magnetic fields, which can induce currents in metallic fittings and heat them up. Such fields may be generated by high-voltage lines or high-frequency generators.

Storage conditions

Hoses must be stored without stress, elongation, compression, or excessive deformation, avoiding contact with sharp or cutting objects. Ideally, they should be placed on dedicated racks. Coiled hoses must be stored horizontally, avoiding stacking. If stacking cannot be avoided, the height of the piles must prevent permanent deformation of the hoses at the bottom. The inner winding diameter of the coil during storage must not compromise product performance and must not be smaller than the values prescribed by the manufacturer. Coils should not be hung on poles or hooks. Hoses delivered straight should be stored horizontally without bending, preferably with capped ends. If stored outdoors, they must be protected from weather exposure.

Rodents and insects

Hoses must be protected from possible damage caused by rodents and insects. If such risks are present, adequate protective measures must be implemented.

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Marking of packaged items

Hoses should always be clearly identifiable, even when packaged.

Dispatch from the warehouse

Before delivery, hoses must be checked to ensure they are intact and suitable for the intended use.

Return to storage

Before being stored again, hoses that have been in service must be emptied of all transported substances, paying special attention if chemicals, explosives, flammable, abrasive, or corrosive products were conveyed. After cleaning, the hose should be inspected to verify its condition and possible reusability.

Transportation

During transportation, products must remain in their original packaging, protected from weather, light, and heat sources.

During transport, rubber parts must not come into contact with chemical agents (such as acids, bases, and solvents) or certain metals (such as manganese, copper, and its alloys), and fittings must not come into contact with corrosive substances.

Contact with sharp edges and cutting objects must also be avoided.

INSTRUCTIONS FOR USE

Pre-installation checks

Before installation, carefully inspect the hose and verify all its features to confirm compliance with the specifications: type, diameter, and length. A visual inspection should also ensure that there are no obstructions, cuts, damaged covers, or other visible defects.

Handling

Hoses must be handled carefully, avoiding impacts, dragging over abrasive surfaces, crushing, and should not be pulled forcibly when twisted or bent. Heavy hoses, usually delivered straight, must be supported during transport on suitable supports. If wooden supports are used, they must not be treated with creosote or painted with substances that may harm the hose. If hoses need to be lifted during handling, they must be properly supported. When lifting heavy hose coils with a forklift, the forks must be adequately protected to avoid damaging the hose structure.

Pressure and leak tests

The service pressure indicated by the manufacturer must never be exceeded, even briefly. After installation, remove any air pockets and gradually bring the system to maximum operating pressure to check equipment functionality and the absence of leaks. This check must be performed in areas free of hazards.

Temperature

Hoses must be used within the generally indicated temperature limits. In case of doubt, consult the manufacturer.

Conveyed products

Hoses must be used exclusively for the products they are designed to convey. In case of doubt, always consult the manufacturer. For hazardous applications (toxic, corrosive, explosive, or flammable products), all possible precautions must be taken to limit the consequences of accidental hose bursts. **Hoses should be emptied at the end of the work period whenever possible.**

Environment

Hoses must be used in the environmental conditions for which they were designed. In case of doubt, always consult the manufacturer.

Bending radii

Installation below the minimum bending radius significantly reduces hose life. It is also necessary to avoid bends immediately after the fittings.

Twisting

Unless otherwise specified, hoses are not designed to work under torsion. Specific applications or installations must be verified with the manufacturer.

Tensile loads

Hoses are not designed to work under tensile load. If there are doubts regarding their suitability for tension, consult the manufacturer in advance.

Vibrations

Vibrations subject hoses to fatigue and heating stresses that concentrate near the fittings and can cause premature bursts. Always ensure that the product is designed to withstand such stresses.

Electrical properties

The electrical properties of hoses are measured between the fittings and expressed in ohms (Ω).

Regarding electrical properties, fitted hoses are classified into three types:

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- a) Electrically bonded
- b) Conductive (antistatic)
- c) Non-conductive (or discontinuous or insulating)

Product standards, specifications, or manufacturers' technical sheets may define specific electrical grades belonging to the types above. For the measurement and verification of hose and hose assembly electrical properties, refer to ISO 8031. Regularly check the conductivity of assemblies at predetermined intervals.

Installations between two fixed points

Hoses installed between two fixed points must be supported by a suitable holding device that does not prevent normal hose movements under pressure (changes in length, outside diameter, twisting, etc.).

Moving parts

When hoses connect moving parts or components, ensure that the hose length is adequate and that movements do not cause impacts, abrasion, or abnormal stresses such as bending, twisting, or tension.

INSPECTION AND MAINTENANCE

Even when the product is used in full compliance with the instructions in this document and the attached data sheets, all materials used to manufacture the hose are subject to natural aging, resulting in a loss of their chemical, physical, and mechanical properties.

It is therefore necessary to implement a proper and regular maintenance program, whose frequency should be determined based on the severity of the application.

In particular, during periodic inspections, pay close attention to the condition of the hose and fittings to detect any anomalies that indicate hose deterioration and require its removal from service.

Main hose anomalies:

- Cracks, splits, abrasions, delamination, tears in the cover with damaged or exposed reinforcement
- Deformations, blisters, localized bulges under pressure
- Sticky or soft areas
- Leaks

Main fitting anomalies:

- Cracks or signs of corrosion on metal parts
- Worn gaskets
- Fitting slippage on the hose
- Leaks

These irregularities justify hose replacement.

Repairs

Hose repairs are not recommended. Always contact the hose manufacturer in case of any doubts regarding possible repairs.

HOSE IDENTIFICATION

The hose assembly is identified by markings on both the ferrule of the fitting and the hose itself.

The ferrule of the fitting bears the following data:

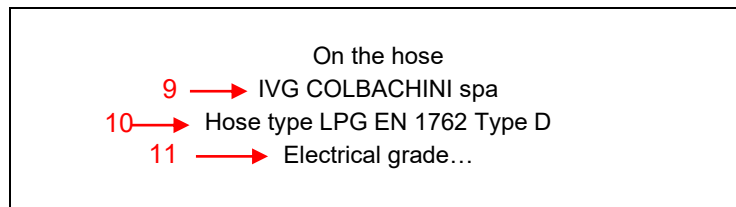
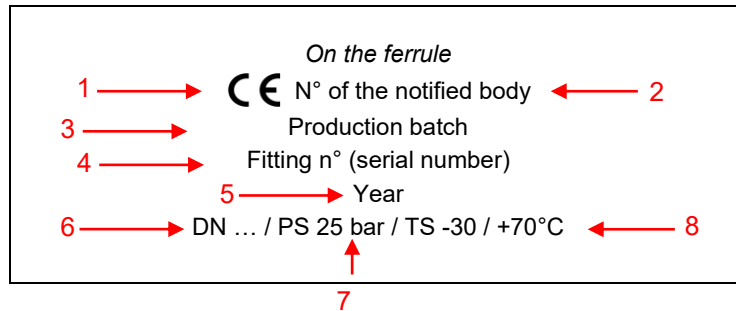
- 1) CE marking;
- 2) Identification number of the notified body;
- 3) Production batch;
- 4) Coupling n. (serial number);
- 5) Year of production;
- 6) Nominal diameter;
- 7) Maximum allowable working pressure;
- 8) Minimum and maximum allowable temperature.

The hose bears the following data:

- 9) Manufacturer identification;
- 10) Nature and name of the product;

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11) Electrical grade.



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