SPECIAL DETAILS

SAFETY INSTRUCTIONS FOR HOSES INTENDED FOR CHEMICAL APPLICATIONS

INTRODUCTION

The chemical resistance of a hose is closely related to the medium conveyed and to the conditions of use. In particular, remember to check the chemical resistance of the elastomer that constitutes the inner tube in the table found on the IVG website (<u>https://www.ivgspa.it/en/chemical-resistance.aspx</u>).

The useful life of the product is seriously influenced by the conditions of use such as temperature and pressure, as well as delivery speed, abrasion, frequency, and duration of use. The age of the hose and the degree of impurities of the transported chemical product are also determining factors.

USE

Particular care must be taken to ensure that the cover and ends of the hose don't come into contact with the chemicals and/or elements that may damage the integrity of the hose.

All operators involved in the use and maintenance of the hose and its fittings must be adequately trained on the proper use of chemicals. They must also wear appropriate protective clothing and devices.

A system failure could cause the release of toxic, corrosive and/or flammable material.

If you use chemical products or mixtures that differ from what is listed in the IVG chemical resistance chart please contact IVG before use. You are also advised to contact IVG if the nature or composition of the product to be conveyed, for example concentration or temperature, do not correspond to indications given by IVG. <u>www.ivgspa.it/it/resistenze-chimiche.aspx</u>

FITTINGS

We recommend using fittings in materials suitable for the conveyed product. Pay particular attention to the combination between different materials if their contact can produce galvanic corrosion (e.g. aluminum - brass). Any small variation in concentration or temperature of the conveyed product can determine an important reduction of the mechanical characteristics of the metallic fitting. In case of doubts about the choice of the appropriate fitting please contact IVG Colbachini (https://www.ivgspa.it/en/contacts.aspx).

INSPECTION AND MAINTENANCE

Even if the use of the product complies with all the prescriptions reported in this document and in the attached sheets, all the materials used for the hose production suffer a natural aging with subsequent loss of the chemical-physical-mechanical characteristics. Hoses and fittings must be carefully inspected preferably before each use and in any case with a periodic frequency not exceeding 6-12 months. This will help prevent possible leakage of polluting substances, dangerous for the health of man and the environment.

It is important during these periodic checks to pay attention to the state of the hose and fittings. Any anomalies that are detected indicate a degraded state of the hose and determine its removal from service.

Main anomalies detectable on hoses:

- cracks, cuts, abrasions, detachments, tears of the cover with damaged or uncovered areas of reinforcement
- deformations, bubbles, specific swelling under pressure
- sticky or soft areas
- leaks

Main anomalies detectable on fittings:

- cracks or signs of corrosion on the metal parts
- worn gaskets
- sliding of the fitting on the hose
- leaks

Avoid stagnation of products in the hose, especially in the case of solutions or emulsions. The resulting decanting causes concentrations to exceed the allowed limits. To avoid this phenomenon, proceed with emptying and cleaning after each use where possible.

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