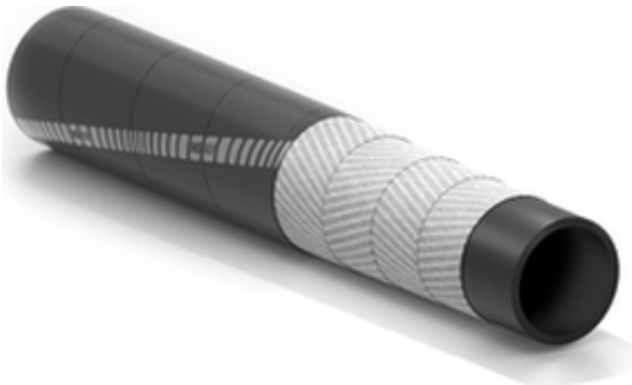


Spezia

Ex
zone

Fuel and oils delivery hose



Specifications:

EN 12115:2021 (16 bar).

Application:

softwall hose used for the delivery of mineral oils, unleaded gasoline and fuels with aromatic content up to 50%.

Hose suitable for use in an ATEX environment.

Tested by the notified body INERIS.

Suitable for ATEX environment

According to EN 12115

Electrically conductive hose



Tube:

black, smooth, NBR1 conductive rubber.

Reinforcement:

high strength synthetic cord.

Cover:

black, smooth (wrapped finish) synthetic rubber, weathering, abrasion, ozone and oil resistant.

Temperature:

from -30°C (-22°F) to +80°C (+176°F).

Electrical resistance:

Ω/T , electrically conductive hose. Electrical resistance guaranteed for lengths equal or lower than 60 m.

Branding:

continuous embossed marking according to EN 12115 + continuous yellow brand "IVG Oil (family logo)..."



Code	Inside diameter		Outside diameter		Working pressure		Burst pressure		Weight nominal		Length max	
	mm	inch	mm	inch	bar	psi	bar	psi	kg/m	lbs/ft	m	ft
2200441	13	1/2	24	0,95	16	240	64	960	0,36	0,24	120	400
2200442	19	3/4	31	1,22	16	240	64	960	0,53	0,36	120	400
2200443	25	1	37	1,46	16	240	64	960	0,65	0,44	120	400
2200444	32	1-1/4	44	1,73	16	240	64	960	0,84	0,56	120	400
2200445	38	1-1/2	51	2,01	16	240	64	960	1,04	0,70	120	400
2200446	50	1-31/32	66	2,60	16	240	64	960	1,66	1,12	120	400
2200447	63,5	2-1/2	79,5	3,13	16	240	64	960	2,04	1,37	120	400
2200448	75	2-61/64	91	3,59	16	240	64	960	2,34	1,57	120	400
1499742	100	4	116	4,57	16	240	64	960	3,05	2,05	120	400

Variants available on request:

1. Hardwall hose with smooth cover.

Recommended Couplings:



Fuel Italian Type coupling



Camlock EN 14420-7 (DIN 2828)



TW EN 14420-6

SPECIAL DETAILS

NOTES AND SUGGESTIONS FOR THE END USERS FOR HOSE ASSEMBLIES INTENDED TO BE USED IN ATEX ENVIRONMENTS 2014/34/UE

Below are the notes for the proper use of the product in ATEX environments and warnings resulting from the risk analysis for the verification of effective ignition sources **regarding the hose assembly**.

Suggestions for a correct Risk Analysis are also given. There is no presumption that these suggestions could be exhaustive of every possible ATEX environment scenario in which the hose assembly could found, however the goal is to help the final user to carry out a correct Risk Analysis.

IVG Colbachini cannot, nor does it intend to, replace the Employer in his task of carrying out the Analysis. The aim is to help him in this activity.

The 1999/92/CE Directive (Minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres) obliges the Employer to:

1. evaluate the risks of explosion considering the following:

- likelihood and persistence of explosive atmospheres;
- likelihood that ignition sources will be present including electrostatic discharge;
- scale of possible effects;
- characteristics of the plant, substances used, processes and possible interactions;
- places that are or can be connected via openings with areas where explosive atmospheres are likely to generate.

2. To issue a document "**Explosion protection document**" (Risk Analysis).

3. To always update the "**Explosion protection document**" (Risk Analysis)

NOTE A – hot surfaces.

The hose does not contain heat sources, so the surface temperature of the hose depends strictly on the use by the end user. In the pneumatic conveying systems periodically check the integrity of the hose and its layers.

Do not use the hose if the inner layer is heavily worn. The range of the working temperature of the material for which we guarantee the properties is according to the technical data sheet of the product.

Damage resulting from improper use of the product are not attributable to the manufacturer.

NOTE B – sparks of mechanical origin.

The hose has no moving parts and it is not able to generate this source of ignition. In the pneumatic conveying systems, it is likely that sparks are carried from earlier process operations and not due to the hose itself. It is the end user's responsibility to operate so that this source of ignition is not present, internally and externally to the hose.

NOTE C – electrical equipment.

There are no electrical materials provided with the hose. The possible steel helix wire (if present between the layers of the hose) has been designed, to impart mechanical strength to the hose. The helix wire is not intended as an electrical conductor, but it can help the dispersion of electrostatic charges if and only if it is correctly connected to the ground line or to equipotential bonding jumpers with equipment already connected to the ground line.

NOTE D – eddy currents.

This ignition source is not applicable to the hose in question. The end user must operate so that the hose is not isolated from sections of insulating hoses. The hose, thanks to its conductive/dissipative characteristics is able to disperse possible electric/electrostatic charges accumulated during the process if and only if the hose is properly connected to the ground line.

NOTE E – electrostatic charges.

The hose does not contain or inherently generates electrostatic ignition sources. Eventual generation and accumulation of charges may depend on the material transported in the process and the ability of the material, properly connected with equipotential connections and/or connections with grounding, to be able to drain them. Care should be taken in the perfect cleaning and maintenance of connections and periodic assessment of the earth resistance that can detect anomalies in the system. The material the hose is made of has been designed to maximize the dispersion of electrostatic charges that can be generated due to the process. The nonapplication of these notes and improper use of the product as designed, absolve the manufacturer from any responsibility for any damage that may result. According to the characteristics and needs of the process that may generate internal and external hazardous atmospheres, detailed studies should be performed by experienced staff to guarantee a proper use of the product.

The concepts, recommendations, references and the limits reported in the following standards are extremely important in order to carry out a detailed study:

- CEI CLC/TR 60079-32-1:2016 – Electrostatics – Code of practice for the avoidance of hazards due to static electricity.
- NFPA 77 - 2014 - Recommended Practice on Static Electricity.
- UNI CEI EN ISO 80079-36:2016 – Explosive atmospheres - Part 36: Non-electrical equipment intended for explosive atmospheres - Basic method and requirements.
- UNI CEI EN ISO 80079-37:2016 – Explosive atmospheres - Part 37: Non-electrical equipment intended for explosive atmospheres - Type of non-electrical protection for constructive safety "c", for ignition source control "b", by immersion in liquid "k".
- UNI EN 1127-1/2011 Explosive atmospheres. Explosion prevention and protection – Part 1: Basic concepts and methodology.

NOTE F – adiabatic compression and shockwaves.

It is not applicable to the supplied hose. The possible releases of gas at high speed can only be caused by the process. The user must assess the possible presence of this ignition source before putting the hose into use.

The use of the product / hose as pneumatic conveying equipment brings the transport of embers generated in the connected process equipment.

We suggest checking the presence of ultrasonic waves as they may, in extreme cases, cause the ignition of a liquid or solid substance.

SPECIAL DETAILS

SAFETY INFORMATION – USER RESPONSIBILITIES

The service life of rubber hoses mainly depends on the dedicated use. Equipment and systems where the hose is installed must be designed safely. Since our hose can be designed for different applications, **IVG Colbachini** cannot guarantee the proper functioning of the product for all situations.

The analysis of the technical aspects related to specific uses must be performed by the users when choosing the product that meets their requirements. So, in relation to the variety of operating conditions and applications of the IVG hose, the user is solely responsible for the final choice of the product deemed suitable to satisfy the performance and safety requirements called for the application.

The information and technical data shown in the product data sheets must be examined by users with appropriate technical skills. IVG Colbachini is not responsible for other uses, identified by the end user, that are different from the one shown in its catalogues, product sheets, offers, order confirmations and any recommendations attached.

An inappropriate choice of the product or a failure to follow the procedures of installation, use, maintenance and storage of the hoses may lead to a hose break and cause material damage and/or serious injury to people.

For the selection and proper use of the IVG products you can also refer to the document "Recommendations for selection, storage, use and maintenance of rubber hoses" provided by Assogomma and available on www.ivgspa.it. These recommendations are according to the international standard ISO 8331, "Plastic and rubber hoses and hose assemblies - Guidelines for selection, storage, use and maintenance."

For safety reasons, never exceed the working pressure indicated in the product data sheet.

For specific applications of rubber hoses, please refer to the legal requirements or specific standards; moreover, additional recommendations for particularly critical applications are available.

For further information, contact the Marketing department (marketing@ivgspa.it).