



ATEX on hoses

Information regarding ATEX conformity flexible hoses

The ATEX guideline cannot be applied to flexible hoses directly because flexible hoses are not equipment or protective system as defined by the guideline but a compound without an autonomous function that has to fulfil certain specifications. However, the various electrically conductive hoses in our program can be used under certain conditions according to the ATEX directive.

Equipment categories of Group II according to Guideline 2014/34/EU (ATEX):

- Category 1: explosive atmospheres are present continuously
- Category 2: explosive atmospheres are likely to occur
- Category 3: explosive atmospheres are unlikely to occur and if they occur, do so for a short period of time

The ATEX guideline for prevention of electrostatic charge and potentially resulting ignitable discharges recommends the use of electrically conductive compounds as the most important protective system for all categories. Furthermore, all conductive parts that could be dangerously charged have to be connected and grounded.

For flexible hoses, the spiral can be connected and, if necessary, provided with earthing eyelets. Certain solid plastic hoses may have a copper conductor (copper lits).

According to DIN IEC 93, a technical part, here a flexible hose, has a conductive property if the surface resistance is $<10^6$ Ohm / m. In general, it can be said that the lower the Ohm value (surface resistance), the better the conductivity. Hoses with a higher ohm value such as 10^9 ohm (Brevoduct-NV100-A) or 10^{10} ohms (Vacuflex-VSM-A) are usually referred to as antistatic, but they are not conductive.

The following hoses in our program fulfil the requirements of ATEX guideline:

The grounding required by the guideline is done by exposing of reinforcing wire and connecting it to the earth.

- Vacuflex-VSM-EL
- Brevoduct-Profil-EL
- Brevoduct-P2-PE-EL (=PE.1-EL)
- Brevoduct-P1N-PU-EL
- Brevoduct-P3-PU-EL
- Brevoduct-P7-OL-PU-EL
- Brevoduct-P7-M-PU-EL
- Brevoduct-Clipflex-PE-el
- Brevoduct-Clipflex-Hyfef-el
- Brevoduct-Clippflex-PeTef-el
- Brevoduct-Clipflex-PTFE-el
- Brevoduct-Clipflex-Silfef-el

Not all of the hoses mentioned here are in our standard program as showed on www.flexibeleslangen.nl but are on request. The above hoses mainly concern extraction hoses for air, vapours, gases and dust or other solid particles. There is also a wide range of rubber and plastic hoses for solid or liquid media. These are often indicated on our website with AS or OHM in the type designation. Resistance is often given on our website.