

INBUREX CONSULTING GMBH · AUGUST-THYSSEN-STR. 1 · 59067 HAMM

Filcoflex BV

Tav. Werner van Loon (werner@filcoflex.com) Luxemburgstraat 3 5171 PK Kaatsheuvel The Netherlands

Your reference PO by mail Werener van Loon dd. 09/12/2021 Our reference

vL/16187/09/12/2021

Document 16187 Earthing and bonding when using flexibles .doc Date

09/12/2021

EX/16187/21

Earthing and bonding when using flexible joints

If a flexible installation is made between two conductive installation parts, a conductive connection must be made between those two installation parts to keep these two separated and therefore electrically isolated conductive parts at equipotential. In other words, the conductive parts must also have an electrical connection with each other to prevent and/or settle potential differences e.g. due to due to electrostatic charging. The electrical resistance should be less than 10 Ohms.

This connection will **not** prevent static charging of the usually non-conductive flexible itself.

The connection, however, must ensure that any electrical or electrostatic charge formed on the connected conductive installation parts is discharged in order to prevent sparking.

However, if these two installation parts are already connected to each other via a different conductive route, a connecting wire over the flexible then of course is no longer necessary.

The connecting wire must be of such a quality that breaking is prevented as much as

INBUREX Consulting GmbH Pagina 2 van 2

possible due the continuous movement of that wire by, for example, a sieve. To do this, use wires that do not bend easily but are a bit more stiff. Litz-like connections are quite sensitive to repeated bending which allows them to break quite easily.

The following photo shows a flexible or manchet with suitable bonding wire.



INBUREX Consulting GmbH

Dipl.-Ing. (FH) Jörg Meistes Managing Director Fire and Explosion Protection Gerard van Laar, M. Sc. Senior Consultant

Dokument: 16187 Earthing and bonding when using flexibles