

Declaration of conformity TRGS 727

TRGS 727 replaces and updates the previous TRBS 2153.

In TRGS 727, aspirative and pneumatic conveying through spiral hoses / ducting with a metallic helix are considered separately in connection with electrostatic charging.

The resulting updates for pneumatic conveyance (pressure-conveying) are as follows:

1. Only metallic, blank, uninsulated, non-covered wires may be used as support spiral/helix

2. The support spiral/helix is to be grounded at both ends

3. The spiral/helix wire diameter is between 1 mm and 2 mm

4. The distance (layer thickness) between the inner hose lining surface and the spiral/helix wire surface is between 0.7 mm and 2 mm

5. The gradient of the spiral/helix is no larger than 30 mm

6. The spiral/helix is integrated into a homogenous material with a specific resistance of less than

$\rho \leq 2.5 \times 10^8\ \Omega m$

7. The inner diameter of the hose/ducting is between 50 mm and 160 mm

8. The relative permittivity of the wall material is not greater than 5

For other geometric arrangements, higher values of relative permittivity or for multi-layered hoses/ducting with a support spiral/helix, the upper limit value can be calculated for the permitted specific resistance of the wall material by means of simulation calculations under the assumption of a charging current density of 1 mA/m2

Based on these updates, MASTERFLEX SE has carried out a comprehensive series of testing, which has confirmed the suitability of the hoses for the wide range of application areas in accordance with the below mentioned matrix

These results have been verified by the independent TÜV Süd AG institute in their technical report 713082091

The above-described items of the Declaration are in accordance with the relevant harmonization legislation of the Union: Directive 94/9 / EC (until 19 April 2016) and Directive 2014/34 / EU (from 20 April 2016)

Gelsenkirchen, 14.02.2023 for GMS Hadice s.r.o.