



Ruhrkunststoff

Manufacturer's Declaration of Conformity Regarding Electrostatic Suitability in Accordance with TRGS 727

SMARTFLEX series and FLEXADUX P2 CNC

Assessment of electrostatic properties for use in potentially explosive atmospheres

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hereby declares the evaluation of the **SMARTFLEX** and **FLEXADUX P2 CNC** spiral hoses with regard to their electrostatic properties when used in potentially explosive atmospheres.

Scope of Application

This manufacturer's declaration is based on the requirements of **TRGS 727 – Prevention of Ignition Hazards Due to Electrostatic Charges** – and takes into account the explosion protection requirements of Directive **2014/34/EU (ATEX)**.

The spiral hoses mentioned do **not** constitute **equipment or protective systems within the meaning of Directive 2014/34/EU (ATEX Product Directive)** and are therefore not subject to the obligation to issue an EU Declaration of Conformity under this Directive. This declaration serves exclusively to evaluate the electrostatic properties of the hose systems within the framework of the safety assessment of complete systems. The final suitability for the respective application must be assessed by the operator as part of the risk assessment in accordance with BetrSichV, GefStoffV, and the relevant explosion protection regulations.

Electrical Properties

The hoses of the **SMARTFLEX** series have a maximum specific electrical resistance of

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

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When used as intended, installed properly, with all metallic components conductively connected, and grounded in accordance with standards, these hoses can meet the requirements of TRGS 727 regarding the prevention of hazardous electrostatic charges.

This applies in particular to applications involving:



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- pneumatic transport of flammable bulk materials,
- conveying flammable liquids,
- extraction and aspiration applications in potentially explosive atmospheres.

This assessment applies to SMARTFLEX hoses with inner diameters ranging from **50 mm to 160 mm**.

The hoses of the **FLEXADUX P2 CNC** series exceed the limit value applicable to these applications according to TRGS 727 and are therefore not suitable for the pneumatic transport of combustible dusts or the conveyance of combustible liquids in potentially explosive atmospheres.

Notes on use in Ex zones

Suitability for use in potentially explosive atmospheres (e.g., Zones 0, 1, 2, 20, 21, 22) always depends on:

- Type of conveyed medium
- Installation and connection conditions
- Hose length and wall thickness
- Equipotential bonding and grounding
- Process parameters (e.g., flow rate, temperature, pressure)
- Couplings, fittings, and system components used

A blanket approval for individual Ex zones—particularly for **Zone 0**—can therefore only be granted as part of an assessment of the entire system.

This manufacturer's declaration does not replace a system-specific explosion protection assessment.

Areas of application

Hose type	Pneumatic transport of combustible dusts (system-specific) (Zones 20, 21, 22 indoors)	Aspiration (No zone or Zone 22 indoors)	Conveying of flammable liquids (Indoor: Zones 0, 1, and 2)	Pumping of non-flammable liquids	Use in Zones 1 and 2	Use in Zone 0
Smartflex 0.4	✓*	✓	✓	✓	✓	✓*
Smartflex 0.6	✓*	✓	✓	✓	✓	✓*
Smartflex 0.7	✓*	✓	✓	✓	✓	✓*
Smartflex 1.0	✓*	✓	✓	✓	✓	✓*
Smartflex 1.4	✓*	✓	✓	✓	✓	✓*
Smartflex 2.0	✓*	✓	✓	✓	✓	✓*

P2 CNC	X	✓	X	X	X	X
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Table 1: Clear overview of the use of different types of spiral hoses

* Only following a system-specific explosion protection assessment by a qualified person

Basis of the assessment

The basis for the technical assessment is:

DEKRA Test Basis / Mark: 16EXAM 11027 BVS-BI

Technical status of the assessment: **November 10, 2016**

This declaration applies exclusively to the electrostatic properties of the specified hose types.

Additional notes for pharmaceutical and food applications

For applications in pharmaceutical, food, and hygiene-sensitive areas, the respective requirements regarding:

- Material compliance
- Cleanability
- food safety approvals

, in particular in accordance with:

- Regulation (EC) No. 1935/2004
- Regulation (EU) No. 10/2011
- FDA requirements (where applicable)

This manufacturer's declaration covers exclusively the electrostatic assessment in accordance with TRGS 727.

Notes on Aging and Maintenance

The specified electrostatic properties apply to new material under the stated test conditions. Mechanical stress, UV radiation, chemical influences, and aging can affect the electrostatic properties. Regular testing of the electrical properties in accordance with the Industrial Safety Regulation is recommended.



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Document details

Date of issue: May 05, 2026

It remains valid until technical changes, changes to the normative basis, or new test results necessitate a reassessment.

Sincerely

Ocono Ruhrkunststoff GmbH
Quality Assurance

A handwritten signature in black ink, appearing to be 'H. Heinrich'.