TRANSLATION

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Test and assessment report on the electrostatic properties of textile Air Ducting & Diffusers of type AS

Applicant: Prihoda s.r.o
Za Radnici 476
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Czech Republic

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Reference no.: 11EXAM 11069 BVS-Bl

Bochum, 15th December 2011

DEKRA EXAM GmbH

Signed: Hesener

Dr. Ute Hesener

Signed: Blum

Dr. Carsten Blum

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Expert Body for Explosion Protection
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1. Subject Textile air ducting and diffusing system
Diameter: 1000 mm, length: 2000 mm

2. Name Air Ducting & Diffusers AS

3. Manufacturer/ Applicant: Prihoda s.r.o, Hlinsko, Czech Republic

4. Testing documents: Application dated 03.11.2011
Test specimen

5. Background

Prihoda s.r.o, Hlinsko, Czech Republic, submitted specimen of their textile Air Ducting & Diffusers of type AS, for an assessment with regard to their electrostatic properties regarding a use in potentially explosive atmospheres. The hose system consists of a textile perforated fabric which can be extended in diameter by means of plastic zips and additional metallic press buttons. The textile air ducting and diffuser is equipped with textile ribbons which are fastened to the fabric and small metal rings (earthing points) which are worked into the fabric and serve the purpose of earthing the hosing system.

6. Assessment

In order to assess the electrostatic chargeability, the individual components of the capacitor were submitted to resistivity measurements and measurements of resistance to earth.

6.1 Resistivity measurements

The resistivity measurements were carried out after the specimen had been stored at normal climatic conditions, i.e. for a period of 24 hrs according to DIN 50 014 -23/50-2, and at a temperature of 22°C and relative humidity of 32% according to DIN IEC 60093.
The test was conducted applying a measuring voltage of 100 V.
A so-called ring electrode according to DIN EN 1149-2 was used to measure both the surface resistivity and the contact resistivity of the fabric.
The following surface resistivity $\mathbf{R_O}$ was measured at five different measuring points:

Measuring point	Resistivity R_O
1	**$1.7 \cdot 10^8$ Ω**
2	**$2.4 \cdot 10^8$ Ω**
3	**$1.4 \cdot 10^8$ Ω**
4	**$6.9 \cdot 10^7$ Ω**
5	**$2.3 \cdot 10^8$ Ω**