

DEKRA EXAM GmbH

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Bericht
über die Prüfung der elektrostatischen Eigenschaften
eines textilen Filtermaterials
#FG 8305 Tetratex Contact Polyester
Antistatic Needlefelt: Polyester with Stainless steel grid

Auftraggeber: Donaldson Filter Components Limited
7 The Parks
Newton le Willows
WA12 0JQ
England

Bearbeiter: Wilfried Prill
Tel. +49.234.3696-167


Zeichen: 14EXAM 10538 BVS-Pri

Datum: 19.05.2014

DEKRA EXAM GmbH



Dr. Carsten Blum



Wilfried Prill

- 1. Subject** Filter felt
- 2. Type description** #FG 8305 Tetratex Contact Polyester
Antistatic Needlefelt: Polyester with Stainless steel grid
- 3. Manufacturer/client** Donaldson Filter Components Limited
- 4. Test documents** Test order 05/05/2014
Test sample 05/05/2014
- 5. Test equipment** high resistance tester
Sefelec Megohmmeter M1500P, E2246
Thermo-Hygrograph
Ahlborn Mess- und Regelungstechnik GmbH Almemo
2470-1SRH, E2409

6. Description

For the company Donaldson Filter Components Limited, the electrostatic properties of a filter felt, #FG 8305 Tetratex Contact Polyester Antistatic Needlefelt: Polyester with Stainless steel grid, had to be tested for the use in hazardous places.

7. Assessment

To determine the electrostatic chargeability, the sample was tested according to DIN 54345 Parts 1 and 5.

Test according to DIN 54345-1

Surface resistance R_{OT} (geometric median of the values of five measurements each):

Side 1 (marked side): $R_{OT} \approx 6.7 \cdot 10^2 \Omega$, Side 2 (back side): $R_{OT} \approx 2.0 \cdot 10^3 \Omega$.

Volume resistance R_{DT} (geometric median of the values of five measurements each):

$$R_{DT} \approx 7.8 \cdot 10^2 \Omega.$$

Test according to DIN 54345-5

Strip resistance R_{st} in warp direction (arithmetic median of five samples):

$$R_{st30} \approx 1.6 \cdot 10^3 \Omega.$$

Strip resistance R_{st} in fill direction (arithmetic median of five samples):

$$R_{st30} \approx 2.7 \cdot 10^3 \Omega.$$

The testing was carried out with a test voltage of 1 V.

Deviating from the provisions made in DIN 54 345, the test was conducted after at least 24 hours of storage at a temperature of 22 °C and a relative humidity of 34 %.

The maximum permissible resistance value is: $10^8 \Omega$.

This value was under-run in all measurements.

8. Evaluation

In an electrostatic sense, there is no objection to using the earthed filter material in hazardous places.

Bochum, dated 19.05.2014

Responsible

signed: Prill

Wilfried Prill

In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, Germany, dated 19.05.2014

14EXAM 10538E

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A handwritten signature in blue ink, appearing to read "Ute Hesener".

Dr. Ute Hesener

A handwritten signature in blue ink, appearing to read "C. Blum".

Dr. Carsten Blum