Test report

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DANISH
TECHNOLOGICAL
INSTITUTE

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02 December 2019

Customer: E-AT ApS
Solvangsvej 16
DK-4681 Herfølge

Samples: Three VentGuard Ventilation Coating (SC50) on metal plates (see page 2)

Sampling: The samples have been received here on 09 October 2019

Period: The testing has been carried out on 23 October 2019

Procedure: ISO 9352, 2012 Plastics – Determination of resistance to wear by abrasive wheels

Test performed by: Afshin Ghanbari-Siahkali, Senior Specialist, Ph.D.

Result: See page 4

Storage: According to the general terms and conditions of The Danish Technological Institute

Remarks: The name of customer in the repot has been changed. The name of coating is corrected from VC50 to SC50.
Revised date 02 December 2019. This report replaces all previous reports concerning this test.

Conditions: Accredited testing was carried out in compliance with international requirements (EN/ISO/IEC 17025:2005) and in compliance with Danish Technological Institute's General Terms and Conditions regarding Commissioned Work accepted by Danish Technological Institute. The test results apply to the tested products only. This report may be quoted in extract only if the laboratory has granted its written consent.
The customer may not mention or refer to Danish Technological Institute or Danish Technological Institute's employees for advertising or marketing purposes unless Danish Technological Institute has granted its written consent in each case

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Test Reg. nr. 300

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Test

Determination of abrasion resistance

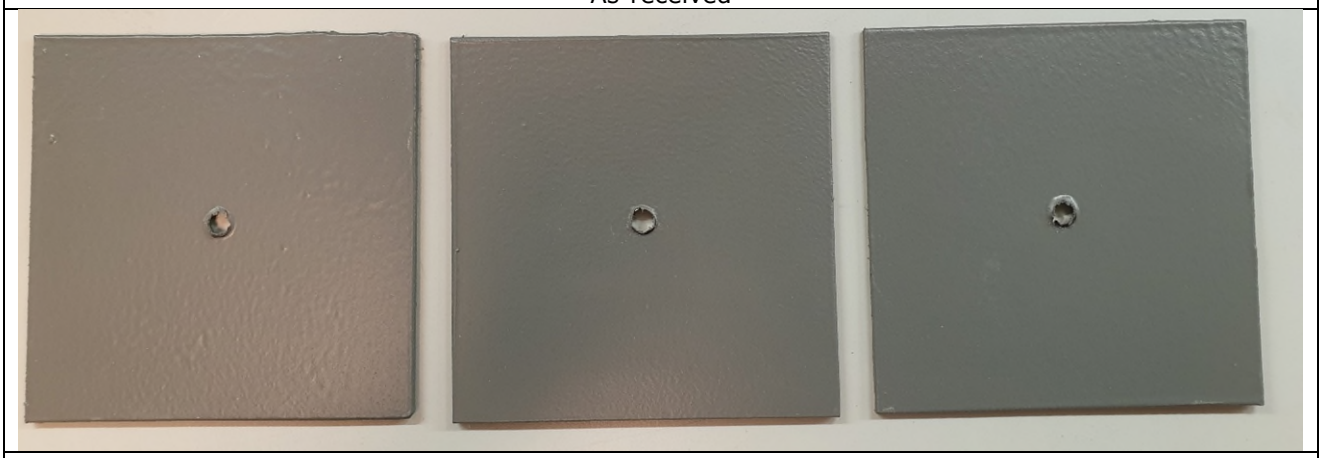
Test method

ISO 9352, 2012 Plastics – Determination of resistance to wear by abrasive wheels

Samples

The VentGuard Ventilation Coating (SC50) on metal plates (100 X 100 mm) are shown in Fig. 1 were received at the DTI-laboratory on 9 October 2019.

As-received



Prepared for test

Figure 1: Test samples for abrasion resistance test

Sample preparation

The test samples were prepared by the client. The as-received test samples were prepared for the test by drilling a hole in the middle of the plates to be able to place it on the Taber test instrument (Fig.3).
The test samples were conditioned at (23 ±2) °C / (50 ±5) % RH in climate control laboratory until the time of testing.

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Equipment

Apparatus:	Taber Abrasion Tester (Fig. 2), model 5135, (32T23.20.1)
Abrasive wheels:	CS10
Load:	500 g
Calliper:	Mitutoye 0 - 150 mm, (32T11.01)
	Ohaus Explorer analytical balance, (32T14.90)
Data logger for Temperature & Humidity:	ECOLOG, (32T13.60)

Figure 2: Taber Abrasion Tester

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Test results

All samples were kept conditioned for two weeks prior to the resistance to wear testing at (23 ±2) °C / (50 ±5) % RH. The results are based on mean values of three measurements with 4000 numbers of revolutions for each measurement (Fig. 3 and Table 1).
At every 1000 revolutions the Abrasive wheels were cleaned by brushing off any traces of debris, which were accumulated during the testing on the wheels.

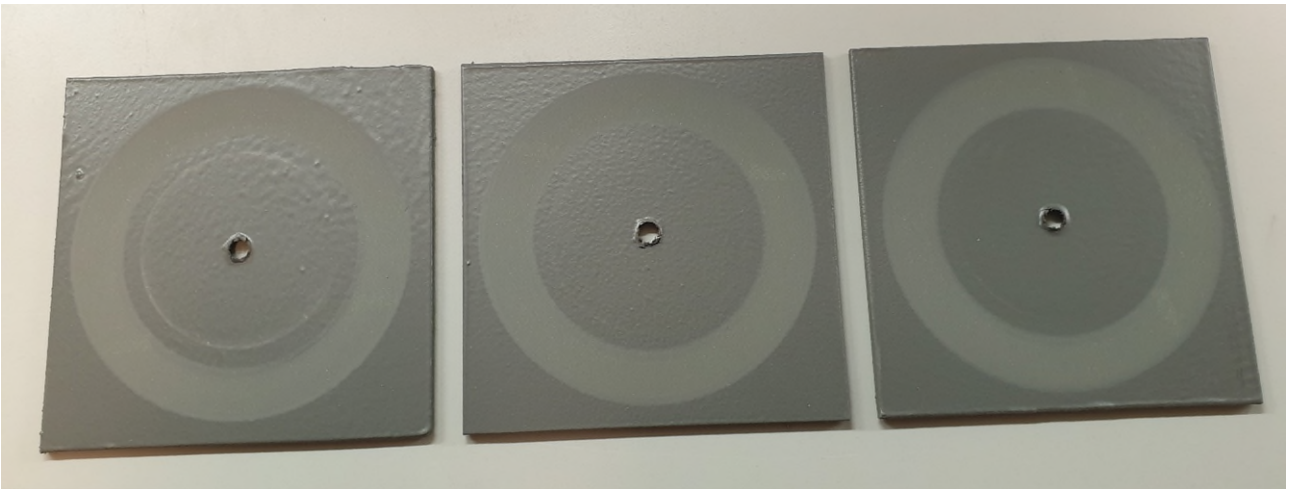

Figure 3: As prepared specimens after the abrasion resistance test

Table 1: Summary of abrasion resistance test results

Sample ID	Specimen no.	Number of revolutions	Wear index, mg/1000 revolutions
VentGuard Ventilation Coating (SC50) on metal plate	1	4000	35.20
	2	4000	33.05
	3	4000	31.38
	Mean (St. dev.)	**-**	**33.2 (2)**