

Zakłady Badań i Atestacji "ZETOM" im. Prof. F. Stauba w Katowicach sp. z o.o.

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Laboratorium Badawcze i Wzorcujace

Opinion No. 42/2016

issued on the date of September 26th 2016

related to the assessment whether the product is compliant with the norm requirements

Name and address of the Ordering Party:	Eco-Term sp. z o.o. ul. Mały Płaszów 10, 30-720 Kraków, Poland
Index of the order placed by the customer:	Order placed on Aug. 23rd 2016
The order has been registered at the lab under the No.:	B/2016/245
Date of carrying out the assessment:	September 26th 2016.
Name of the product	Heat Decor Heating Film
Type - Model	HD310
Technical specification	Rated voltage: 230V 50/60Hz Power: 220W/m
Applied standards:	PN-EN 55014-1:2012

INITIAL RESEARCH REPORT (Pre-Compliance) Of the HD310 Heating Film, with power rating of 220W/m

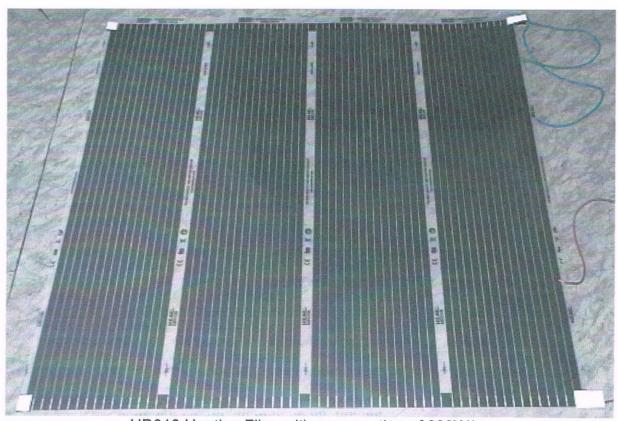
The goal of the precompliance preliminary tests is to define the degree to which the normalization requirements are met, and to get acquainted and determine the real EMC properties of the product.

HD310 1000 mm heating film, with power rating of 220W/m, has been submitted for the research.

Technical parameters:

o power-supply voltage: 230V 50/60Hz

width: 1000 mm
thickness: 0.338 mm
Power: 220W/m
insulation class: II



HD310 Heating Film, with power rating of 220W/m

Nameplate



FOLIA GRZEWCZA HEATING FILM

Model	HD310
Moc / Power [W/m]:	220
Napięcie / Voltage [V]:	230, 50Hz

Wymlary / Dimensions:

Szerokość / Width [mm]:	1000
Grubość / Thickness [mm]:	0,338
Waga / Weight [kg]:	48,5

Producent / Manufacturer: Eco-Term sp. z o.o ul. Cystersów 3, 31-553 Kraków, Poland Wyprodukowano w Korei / made in Korea Tel:+48123576134, info@heatdecor.com

www.heatdecor.com















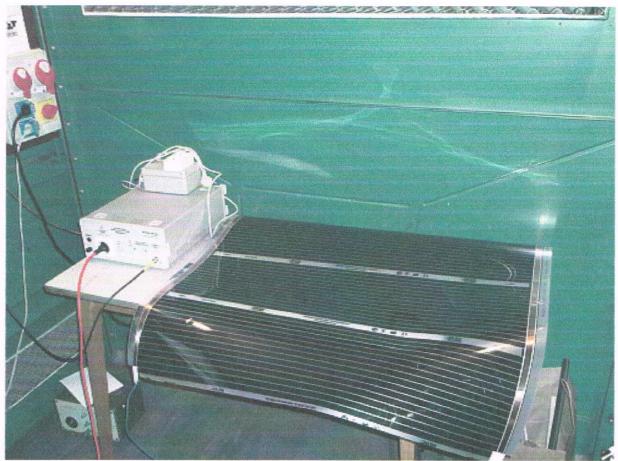


Symbols on the film



INFRARED HEATING FILM MODEL: HD310

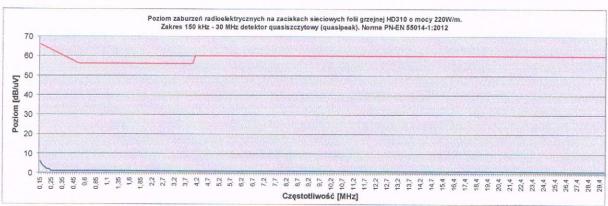




HD310 Heating Film, with power rating of 220W/m on a testing station.

The preliminary test programme of the voltage of the electromagnetic interference within the voltage range between 150 kHz and 30 Mhz has been carried out on the basis of the **PN-EN 55014-1:2012** norm Electromagnetic compatibility – Requirements related to everyday use instruments, electrical tools and similar devices – Part 1: Emission.

Level of the radio-electrical interference has been presented within the chart below [X axis - Frequency [MHz], Y axis - level [dBuV].



The level of the interference generated by the HD310 Heating Film during normal operation.

Red colour - Borderline for the level of the electromagnetic interference.
 Blue colour - Level of the radio-electric interference, expressed in dB/μV.

Measurement conditions:

Power supply voltage: U=232V 50 Hz. Temperature: 19.60 degrees Celsius

Relative humidity 41%

Measurement Instruments:

HAMEG HM 6050-2 No. 013024024 artificial grid (LISN impedance stabilizer),

compliant with the requirements: CISPR 16-1 50 Ω , 50 μ H + 5 Ω .

LMZ-4/50 interference meter, factory no. 1109/82 150 kHz - 30 MHz.

Power supply filter for the object: SCHAFFNER FN2090-20-06.

Power supply filter for the measuring equipment: TOKIN LF-210V-A.

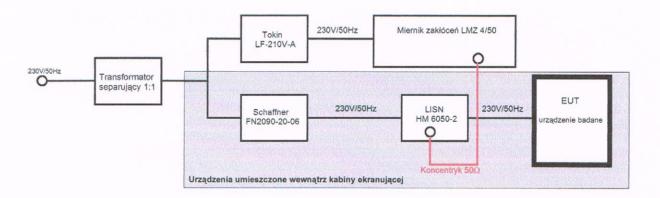
Sepaarating transformer: 230 V 1:1 2 kVA.

EK-1 Shielding Chamber

The test procedure has been carried out during normal operation of the heating film, with power supplied at rated voltage, through the artificial grid.

The measurement has been carried out with the use of point after point methodology.

Measurement Instruments - Layout:



Summary

The Heat Decor Heating Film, model HD310, submitted to be subjected to the measurements, with power rating of 220W/m, meets the requirements of the PN-EN 55014-1:2012 norm, within the scope of the conducted electromagnetic interference.

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Authorized by:

Mauri

Approved by:

p.o. Z-da ds. Badar Kierownik

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dr Katarzyna Hadam