

**MODENA CENTRO PROVE s.r.l.**

Sede legale e Laboratori: 41123 Modena (Italy) - Via Sallustio, 78
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C.C.I.A.A. Modena n. 228587 - Tribunale di Modena n° 2231 - C.F. e P. IVA n. 01592020364

MECCANICA

ECOLOGIA

CERAMICA

AUTOMOTIVE

Modena, 11/10/22

To **VAL INTERNATIONAL SRL**
VIA VIGNOLESE 1389
41010 S. DAMASO MO

Attn. **Sig**
Tiziano Valentini

MATERIAL and/or SAMPLE to be tested	Denomination of the Sample	Client Reference – Your delivery	date
Artificial plant	Green synthetic lichen	Your delivery	29/09/2022

Here attached, you will receive the Test Report of Serial No. **20226166**/n, which shows the results of tests required.

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Director
Sant'Unione dr. Giuseppe

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TEST REPORT: 20226166/1

Modena, 11/10/22

CUSTOMER	VAL INTERNATIONAL SRL - VIA VIGNOLESE 1389 - 41010 - S. DAMASO - MO
MATERIAL and/o SAMPLE to be tested	Artificial plant
Denomination	Green synthetic lichen
Date of sample reception	29/09/2022
Kind of test executed	Combustion test
Referring standards	EN ISO 11925-2:2020
Shifting from standards	none
Equipment	Combustion chamber M146
Subcontracted phases	no one
Sampling made by	customer

*The test results showing in this Report are only referred to the sample taken by our staff or supplied by the Customer. He commits himself to reproduce integrally this document. Partial reproduction is forbidden.
The times of retain of the samples was indicated in the offer related to the test report.*

Examiner p.i. Foroni Gianluca	Automotive Dept. Responsible Falanga Dott. Giacomo	MODENA CENTRO PROVE Director Sant'Unione dr. Giuseppe
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COMBUSTION TEST ACCORDING TO EN ISO 11925-2:2020

Beginning date : 29/09/2022

Ending date : 04/10/2022

Room Conditions:

- Temperature : 23 °C
- Atmospheric pressure : 1010 mbar
- Relative Umidity : 50 %

Sample conditioning:

24 h at T= 23 °C U.R. 50%

Test specifications:

- Flame height: 20 mm
- Distance between the sample and the burner nozzle: 10 mm
- Time of burning : 30 s
- Angle between flame and sample: 45 °

Sample tested :



Examiner

Gianluca Foroni
p.i. Foroni Gianluca

Automotive Dept. Responsible

Giacomo Falanga
Falanga Dott. Giacomo

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Giuseppe Sant'Unione
Director
Sant'Unione dr. Giuseppe

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COMBUSTION TEST ACCORDING TO EN ISO 11925-2:2020**Preliminary Notes:**

The test has been performed on 12 different specimen of the same sample, each of them with a measure of 25cm x 9cm. Since the sample is not planar nor homogeneous it is needed to test it under every possible contact surface. We tested 4 different point of application for the flame, 3 specimen each (12 in total).

Sample	Point of application of the flame
Green synthetic lichen	Side edge of the lichen in the short side of the sample
Green synthetic lichen	Upper part of the surface in the short side of the sample
Green synthetic lichen	Upper part of the surface in the middle of the sample
Green synthetic lichen	Rear palstic square grid of the sample

Ignition has been applied for 30 seconds. After that the test has been recorded for 60 second, measuring if the flame tip hit the distance of 150mm from the application point.

Formation of droplets and particles during the combustion has been recorded. A filter paper has been placed under the flame application point to see if the ignition of the paper occurs.

Test result and observations:

Sample: side edge	Specimen 1	Specimen 2	Specimen 3
Wheter ignition occurs (Yes/No)	yes	yes	yes
Wheter the tip of the flame reaches 150mm above the flame application point (Yes/No)	no	no	no
The time of the flame tip reaches 150mm above the flame application point.	/	/	/
Formation of droplets/particles	yes	yes	yes
Wheter ignition of the filter paper occurs	no	no	no

Sample: upper part in the side	Specimen 1	Specimen 2	Specimen 3
Wheter ignition occurs (Yes/No)	yes	yes	yes
Wheter the tip of the flame reaches 150mm above the flame application point (Yes/No)	no	no	no
The time of the flame tip reaches 150mm above the flame application point.	/	/	/
Formation of droplets/particles	yes	yes	yes
Wheter ignition of the filter paper occurs	no	no	no

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Sample: upper part in the middle	Specimen 1	Specimen 2	Specimen 3
Wheter ignition occurs (Yes/No)	yes	yes	yes
Wheter the tip of the flame reaches 150mm above the flame application point (Yes/No)	no	no	no
The time of the flame tip reaches 150mm above the flame application point.	/	/	/
Formation of droplets/particles	yes	yes	yes
Wheter ignition of the filter paper occurs	no	no	no

Sample: rear plastic grid	Specimen 1	Specimen 2	Specimen 3
Wheter ignition occurs (Yes/No)	no	no	no
Wheter the tip of the flame reaches 150mm above the flame application point (Yes/No)	no	no	no
The time of the flame tip reaches 150mm above the flame application point.	/	/	/
Formation of droplets/particles	yes	yes	yes
Wheter ignition of the filter paper occurs	no	no	no

Final observations :

The ignition of the specimen occurs. Except from the rear of the sample, every specimen tested ignites and develop a flame. Nevertheless, as soon as the burner nozzle is removed, the flame ceases to burn and the ignition ends in a few seconds without expand.

In no cases the flame tip hit the 150mm distance from the application point which is the accettability criteria stated in the EN ISO 11925-2.

The sample should be considered self-extinguishing.

The behaviour of the sample under a flame is more like a fusion instead of an ignition. In fact it develop small flame tips that become extinct immediately after the burning zone melts and gets deformed. This cause the formation of small droplets that fall on the filter paper. These hot particles are not able to ignite the filter paper neither to expand the flames to close parts of the sample or in the near environment. The combustion of the specimens causes a great amount of smoke.

These test results are related to the behaviour of the test specimens of the product under the particular conditions of the test: they are not intended to the sole criterion for assessing the potential smoke and toxicity hazard of the product in use.

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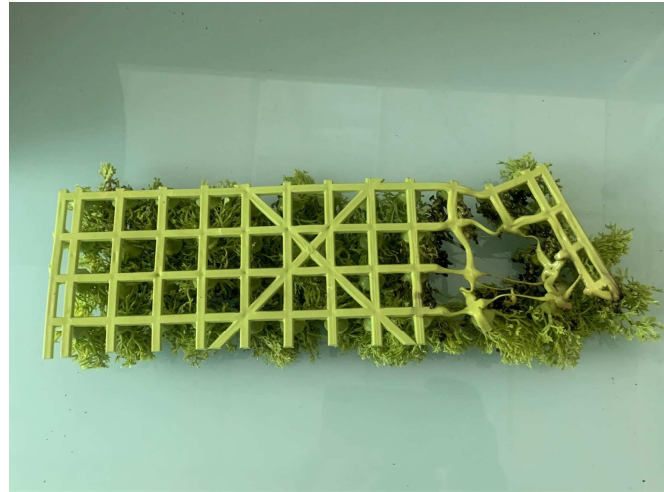
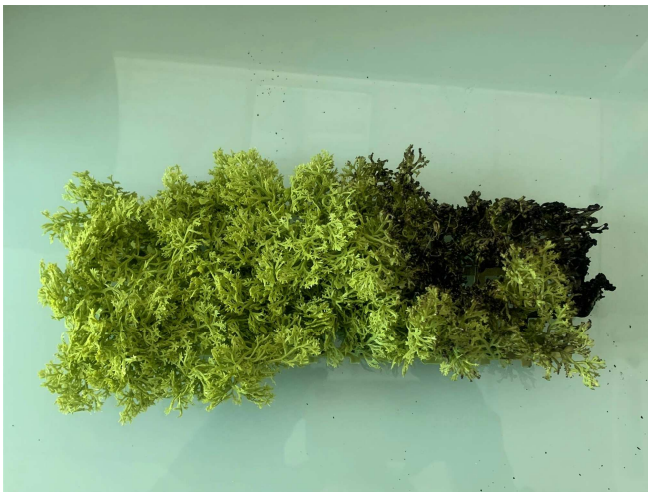


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Photos:

A photographic report of some of the specimens tested with different flame application points.



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