



INNOVHUB  
STAZIONI SPERIMENTALI  
PER L'INDUSTRIA

**SSOG**

STAZIONE SPERIMENTALE  
PER LE INDUSTRIE DEGLI OLI  
E DEI GRASSI

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innovazione e ricerca

Customer:

**CHIMIVER PANSERI S.p.A.**  
Via Bergamo, 1401  
24030 PONTIDA BG

**TRANSLATION OF THE TEST REPORT N°: S-SSOG-2004456**

Issue date: 01/07/2021

Sample declared by the customer: Paint

Your reference: offer acceptance R-SSOG-201822

Acceptance date: 10/02/2021

Start date of the tests: 01/04/2021    End date of the tests: 28/05/2021

Received date: 09/02/2021

Sampling: Provided by customer

Packing: polythene container

Seals: none

**Information provided by the customer:**

Label: ECOSTAR 2K HD PER PAVIMENTI IN RESINA - Comp. A - 1 kg. - Chimiver

ECOSTAR 2K HD PER PAVIMENTI IN RESINA - Comp. B - 0,2 kg - Chimiver

TEST	Results	m.u.
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**DETERMINATION OF DIRT PICK-UP**

UNI 10792 - 1999

Support	white PVC sheet
Dilution (%)	10
Method of application	bar applicator
Total wet thickness (µm)	160
Numbers of coatings	2
Drying time (days)	28
Apparatus	ULTRASCAN PRO
Sphere diameter (mm)	152
Illuminant	D65
Geometry (°)	DIFF/8
Observer (°)	10
Specular reflection	included

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Rapporto di Prova N° 2101909

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RESULTS

$\Delta L^*$

2,16

LEGEND

Classification according to UNI 10795 – 1999

Very low:  $\Delta L \leq 3$

Low:  $3 < \Delta L \leq 9$

Medium:  $9 < \Delta L \leq 15$

High:  $\Delta L > 15$

RELEASE OF ODOUR

UNI 11021:2002 Appendix A

RESULTS

Measured value

0,8

Analysis carried out at the WINE INSTITUTE OF ENGINEERING AND AGRI-FOOD (PC)

The original test report is stored in the archives of SSOG.

WET SCRUB RESISTANCE – BRUSH METHOD

UNI 10560 - 1999

Dilution (%)	10
Method of application	bar applicator
Total wet thickness ( $\mu\text{m}$ )	160
Numbers of coatings	2

RESULTS

Numbers of cycles

> 5000

LEGEND

Classification according to UNI 10795 – 1999

Excellent resistant to washing:  $\geq 5000$  cycles

Resistance to washing: from 1000 to 5000 cycles

Suitable for applications that not require resistance to washing: <1000 cycles

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## CLEANABILITY TEST

UNI 11021-2002 Appendix B

Support	white PVC sheet
Dilution (%)	10
Method of application	bar applicator
Total wet thickness ( $\mu\text{m}$ )	160
Numbers of coatings	2
Drying time (days)	7
Fouling agent	according point B1 of UNI 11021 annex B
Fouling agent thickness ( $\mu\text{m}$ )	75

## RESULTS

$\Delta E^*$

0,14

## FUNGICIDAL ACTIVITY

UNI 11021:2002 Appendix C

Fungal strains	Aspergillus niger, Penicillium sp., Paecilomyces fulvum
Incubation temperature ( $^{\circ}\text{C}$ )	$23 \pm 2$
Incubation time (days)	25
Incubation conditions	culture medium (Malt Agar) and high humidity

## RESULTS

Intensity of fungal growth on the specimen (mean value) 1

Analysis carried out at the WINE INSTITUTE OF ENGINEERING AND AGRI-FOOD (PC)

The original test report is stored in the archives of SSOG.



## RESISTANCE TO LIQUIDS

UNI 11021 - 2002

Test liquid 1	Detergent A – chlorine active
Test liquid 2	Detergent B – alkaline degreaser
Test liquid 3	Detergent C – acid descaling
Test liquid 4	Detergent D – disinfectant
Temperature (°C)	23 ± 2
Test duration (h)	24

## RESULTS

Blistering UNI EN ISO 4628-2:2007	0(S0) - none
Cracking UNI EN ISO 4628-4:2007	0(S0) - none
Flaking UNI EN ISO 4628-5:2007	0 - none
Evaluation carried out after (h)	24
Yellowing	none
Matting	none
Fading	none
Evaluation of the degree of softening	none

## RESISTANCE OF SURFACES TO TEMPERATURE SHOCKS

UNI 11021 APPENDIX D

Substrate	Fiber cement
Dilution (%)	10
Method of application	paint brush
Total wet thickness (µm)	according to spreading rate (90 g/m <sup>2</sup> )
Numbers of coatings	2
Test cycle (STEP 1)	2 hours at -20 ± 2 °C
Test cycle (STEP 2)	2 hours of water immersion at 20 ± 2 °C
Number of cycles	10

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**RESULTS**

Evaluation carried out after (h)

Blistering

UNI EN ISO 4628-2:2007

Cracking

UNI EN ISO 4628-4:2007

Flaking

UNI EN ISO 4628-5:2007

24  
0(S0) - none

0(S0) - none

0 - none

**DETERMINATION OF RESISTANCE TO HUMIDITY - CONDENSATION SINGLE-SIDED EXPOSURE**

UNI EN ISO 6270-1:2018

Apparatus

QCT Condensation tester (S.n. 19-1610-42-ADO)

Test temperature (°C)

38 ± 2

Relative humidity in the chamber (%)

100

Sample inclination to horizontal direction (°)

60 ± 5

Test duration (h)

120

**RESULTS**

Blistering

0(S0) - none

UNI EN ISO 4628-2:2007

Cracking

0(S0) - none

UNI EN ISO 4628-4:2007

Flaking

0 - none

UNI EN ISO 4628-5:2007

Evaluation carried out after (h)

24

Evaluation of the degree of softening

none

**DETERMINATION OF CRACK BRIDGING PROPERTIES (STATIC METHOD)**

UNI EN 1062-7:2005 - METHOD A

Substrate

UNI EN 1766 reinforced concrete plates according to UNI

Dimension of substrate (mm)

1062-7 point C.2.2

Dilution (%)

300 x 200 x 40

Method of application

10

paint brush

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Thickness per coat of paint applied according to spreading rate (g / m <sup>2</sup> )	80-100
Numbers of coatings	1
Test temperature (°C)	23 ± 2

RESULTS

Test tube 1 - thickness	125	µm
Test tube 1 - first crack	433	µm
Test tube 1 - classification according to UNI EN 1062 / 7A	A2	
Test tube 2 - thickness	125	µm
Test tube 2 - first crack	424	µm
Test tube 2 - classification according to UNI EN 1062 / 7A	A2	
Test tube 3 - thickness	125	µm
Test tube 3 - first crack	411	µm
Test tube 3 - classification according to UNI EN 1062 / 7A	A2	

Analysis conducted at the SOCOTEC ITALIA material testing laboratory (Ferrara).  
The relative test report is kept in original in the Innovhub-SSOG archives.

LEGEND

Cracking capacity classification according to UNI EN 1062-1: 2005 Annex A

Class A0: not declared

Class A1: width of the break (microns) > 100

Class A2: width of the break (microns) > 250

Class A3: width of the break (microns) > 500

Class A4: width of the break (microns) > 1250

Class A5: width of the break (microns) > 2500

SURFACE RESISTANCE TO COLD LIQUIDS

UNI EN 12720 ; 2009

Contact liquid 1.1	Aqueous solution at 10% (m / m) of acetic acid
Contact liquid 3	Aqueous solution at 10% (m / m) of ammonia
Contact liquid 6	Instant coffee
Contact liquid 9.1	Undenatured ethanol 96% (v / v)
Contact liquid 11	Condensed milk
Contact liquid 12	Olive oil
Contact liquid 16	Black tea breakfast

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Test temperature (° C)	23 ± 2
Test duration (hours)	1
Detergent solution	0.25% sodium n-dodeci-lbenzene-sulfonate solution

RESULTS

Visual evaluation performed 24 hours after the end of the test

Contact liquid 1.1	Grade 5
Contact liquid 3	Grade 5
Contact liquid 6	Grade 4
Contact liquid 9.1	Grade 4
Contact liquid 11	Grade 5
Contact liquid 12	Grade 5
Contact liquid 16	Grade 5

LEGEND

Classification according to table 2 of UNI EN 12720

Grade 1 Pronounced change

Grade 2 Significant change

Grade 3 Moderate change

Grade 4 Slight change

Grade 5 No change

  
Laboratory Manager  
(Mr. Gianmaria Gasperini)

  
Head of Area  
(Mr. Gianmaria Gasperini)