

REPORT 316/L DATE 25.08.2020

Laboratory	GFC Chimica Srl Laboratorio Chimico Viale Marconi, 73 44122 Ferrara
Customer	START&UP INVESTMENTS S.R.L. VIA TRE SETTEMBRE, 154 47899 DOGANA (RSM)
Sample identification ¹	05062001 – EASYSTOONE CONSOLIDATE
Description of the sample	Coating
Samples receiving (date)	05.06.2020
Analysis beginning (date)	10.07.2020
Analysis end (date)	03.08.2020

1 Introduction

It was tested, on behalf of the company START&UP INVESTMENTS S.R.L. di Dogana (RSM), hereinafter referred to as the customer, a sample of a coating identified and described as reported in the table above.

As agreed with the customer the coating was assessed in order to determinate the following laboratory tests:

- a) determination of resistance to liquids (method UNI EN ISO 2812-1:2018),
- b) determination of dirt pick up (method UNI 10792:1999),
- c) determination of resistance to chalking (method UNI EN ISO 4628-6:2011),
- d) determination of resistance to UV light – 200 hours (method UNI EN 1062-11:2003).

Products sampling was performed by the customer.

2 Results

2.1 Determination of resistance to liquids

The sample was applied on a fibercement substrate and dried for 7 days at $T = 23 \pm 2$ °C and $RH = 50 \pm 5\%$. After the drying time the specimens were dipped in a container filled with the following chemicals (liquid):

- NaOH solution 0.1%
- NaOH solution 1.0%

After a prolonged contact (1 and 24 hours) the specimens were washed, dried and examined. The resistance to the liquids was observed according with ISO 4628 part 2 (blistering).

¹ The code 05062001 is an internal one of GFC Chimica used to mark the sample during the tests.
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The result is the following:

NaOH 0.1%	1 h	blistering = 0	POSITIVE
	24 h	blistering = 0	POSITIVE
NaOH 1%	1 h	blistering = 0	POSITIVE
	24 h	blistering = 0	POSITIVE

2.2 Determination of dirt pick up

The sample was applied on a white chart and dried for 7 days at $T = 23 \pm 2$ °C and $RH = 50 \pm 5\%$. After the drying time the specimens were dipped in a container filled with a standard soiling agent for half of its length. After a contact time (30 seconds) the specimens were washed and dried, therefore the variation of brightness (ΔL) between the clean portion and that one soiled of the surface was measured using an UV spectrophotometer.

The dirt pick up is determinate using the classification in method UNI 10792:

Very Low	: $\Delta L \leq 3$
Low	: ΔL from > 3 to ≤ 9
Medium	: ΔL from > 9 to ≤ 15
High	: $\Delta L > 15$

The result is the following:

Dirt pick up (ΔL)
$\Delta L = 0,14$ Very Low

2.3 Determination of resistance to chalking

The sample was applied on a fibercement substrate and dried for 7 days at $T = 23 \pm 2$ °C and $RH = 50 \pm 5\%$. After the drying time the specimens were tested according with method UNI EN ISO 4628-6 using an adhesive tape and the rating scale described in the test method.

class	Rating (pictorial standard)
0	no chalking
1	very light
2	light
3	moderate
4	moderate-high
5	high chalking

The result is the following:

chalking = 0	POSITIVE
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2.4 Determination of resistance to UV light

The sample was applied on a cement fiber substrate and dried for 7 days at $T = 23 \pm 2$ °C and $RH = 50 \pm 5\%$. After the treatment the aging accelerated test was carried out. The instrument used is the QUV/basic (by QPanel) equipped with UVA 340 nm lamps.

The program of aging is constituted as following:

- 4 hours of irradiation (lamps turn on) at $T = 60$ °C,
- 4 hours of condense (lamps turn off) at $T = 50$ °C.

Total duration of the cycle: 200 hours.

After the ageing the specimens were observed according with ISO 4628 to determinate the surface defects. The rating of the defect is indicated in EN 1062-11, par. 4.2 and EN 4628 parts 2 (blistering), 4 (cracking), 5 (flaking), 6 (chalking).

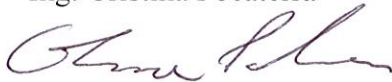
The result is the following:

Before UV	After UV	
chalking = 0	chalking = 0	POSITIVE
blistering = 0	blistering = 0	POSITIVE
cracking = 0	cracking = 0	POSITIVE
flaking = 0	flaking = 0	POSITIVE

GFC Chimica Srl

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GFC Chimica Srl

Il Responsabile di laboratorio

Dr. Arlen Ferrari



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END OF THE REPORT
