



NATIONAL RESEARCH CENTRE
TAHRIR St. DOKKI, CAIRO, EGYPT
Central Unit For Analysis And
Scientifical Services (CUASS)
Material Test Lab.

المركز القومي للبحوث

الدقى . القاهرة . جمهورية مصر العربية
وحدة التحاليل والخدمات العلمية المركزية
معمل اختبار المواد



Test Report

Report No.

Client

Authority & date

Items Tested

Results

Report Typist

Test carried by

Authorized by

Issue date

**Condition of Test
& Issue**

MO1 1643 05 2023

SCIB Chemicals S.A.E

Request Orders 11/5/2023

SmartCare Tile Adhesive Ultraflex 250

The detailed test results are given on the following pages of this report (6 pages) .

*** Mis. Naglaa Mohamed-Sara Abdel Reheam**
Noha Samir

*** Mis . Fatma El Zahraa Fikry**

*** H.Eng. Ahmed Said**

*** Chem. Amr El Shafey**

*** Dr. Abou El Ftouh Abd El Hakem**

Prof. Dr. Mostafa Zaki Mostafa

*** The Supervisor of ceramics, Polymer and
Solid Matter Department.**

*** Management Representative and Quality
Assurance Manager.**

19/6/2023

The test speciemen was conditioned at 23 °C with a humidity of 60 % and the needed calibrations as well as balancing of the all used machines were always done .



TO/ SCIB Chemicals S.A.E

Dear Sir.,

With correspondence to your request dated 11/5/2023 concerning the testing samples of SmartCare Tile Adhesive Ultraflex 250 , We would like to inform you that the all following needed tests were carried out which namely:

- 1- Initial tensile adhesion strength test after 28 days (Regular condition) - according to EN 12004-2-2017
- 2- Tensile adhesion strength test after 20 days water immersion according to EN 12004-2-2017
- 3- Tensile adhesion strength test after 14 days heat ageing at 70°C according to EN 12004-2-2017
- 4- Tensile adhesion strength test after freeze- thaw cycle (25 cycles) according to EN 12004-2-2017
- 5- Transverse deformation after 28 day according to EN 12004-2-2017
- 6- Open time test according to EN 12004-2-2017
- 7- Vertical slip test according to EN 12004-2-2017

We would like to inform you that the needed test was carried out taking into consideration the following conditions :

- 1- In all mechanical properties GALDABINI – QUASAR 600 – Made In Italy Universal Testing Machine was used This type has a self calibration , zero adjusting and automatic balance , which are done daily before testing or during testing this testing instrument is accompanied by a highly reliable system for evaluating the mechanical properties .
- 2- Measuring drum of sensitivity $\pm 0.01\text{mm}$ was used for dimensions evaluation.
- 3- On heating a Memmert West Germany oven was used .
- 4- Weighing Balance with tolerance $+ 0.0001\text{ g}$ was used in determining the weights .
- 5- JSR digital water bath model JSWB - 30T made in Korea .
- 6- All used Machineries and apparatuses were calibrated periodically

The following tables give the obtained results representing the sample delivered from your company .



Test results on a sample of SmartCare Tile Adhesive

Ultraflex 250

Delivered from SCIB Chemicals S.A.E

1- Initial tensile adhesion strength test after 28 days

(Regular condition) - according to EN 12004-2-2017

No.	Results (N/mm ²)	The mean value (N/mm ²)	EN 12004 C2 limit (N/mm ²)
1	1.47	1.43	≥ 1
2	1.39		
3	1.44		
4	1.38		
5	1.46		

* Failure pattern CF-A

2- Tensile adhesion strength test after 20 days water immersion
according to EN 12004-2-2017

No.	Results (N/mm ²)	The mean value (N/mm ²)	EN 12004 C2 limit (N/mm ²)
1	1.39	1.45	≥ 1
2	1.49		
3	1.47		
4	1.46		
5	1.46		

* Failure pattern CF-A



Test results on a sample of SmartCare Tile Adhesive

Ultraflex 250

Delivered from SCIB Chemicals S.A.E

3- Tensile adhesion strength test after 14 days heat ageing at 70°C

according to EN 12004-2-2017

No.	Results (N/mm ²)	The mean value (N/mm ²)	EN 12004 C2 limit (N/mm ²)
1	1.18	1.21	≥ 1
2	1.17		
3	1.23		
4	1.27		
5	1.21		

* Failure pattern CF-A

4- Tensile adhesion strength test after freeze- thaw cycle (25 cycles)

according to EN 12004-2-2017

No.	Results (N/mm ²)	The mean value (N/mm ²)	EN 12004 C2 limit (N/mm ²)
1	1.11	1.14	≥ 1
2	1.17		
3	1.15		
4	1.14		
5	1.11		

* Failure pattern CF-A



Test results on a sample of SmartCare Tile Adhesive

Ultraflex 250

Delivered from SCIB Chemicals S.A.E

5- Transverse deformation after 28 day

according to EN 12004-2-2017

No.	Deformation (mm)	The mean value (mm)	EN 12004 -1 S1 limit (mm)
1	3.77	3.71	2.5 : 5
2	3.89		
3	3.76		

6- Open time test according to EN 12004-2-2017

Open time = 47 min

EN 12004 E limit ≥ 30 min

7- Vertical slip test according to EN 12004-2-2017

Vertical slip = 0.21 mm

EN 12004 T limit ≤ 0.5 mm

* The sample conform with EN 12004 C2 TE S1





NATIONAL RESEARCH CENTRE
TAHRIR St. DOKKI, CAIRO, EGYPT
Central Unit For Analysis And
Scientifical Services (CUASS)
Material Test Lab.

المركز القومي للبحوث

الدقى . القاهرة . جمهورية مصر العربية

وحدة التحليل والخدمات العلمية المركزية

معمل اختبار المواد



This report was given to you representing only the results for the testing samples of SmartCare Tile Adhesive Ultraflex 250 , Delivered from SCIB Chemicals S.A.E, These results and conclusions were given to you without any responsibility on THE CERAMICS, POLYMERS AND SOLID MATTER DEP. of THE MATERIAL TEST LAB in THE NATIONAL RESEARCH CENTRE for pick up the samples to be tested .

**Head of Director of The Board of Central Department
for Scientifical Analysis and Tests
&**

**SUPERVISOR
OF CERAMICS, POLYMER AND
SOLID MATTER DEPARTMENT**

PROF.DR. MOSTAFA ZAKI MOSTAFA

