



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

المركز القومي للبحوث
الدقي . القاهرة . جمهورية مصر العربية
وحدة التحاليل والخدمات العلمية المركزية
معمل اختبار المواد



Test Report

Report No.	MO1 6942 03 2025
Client	DIAR special works
Authority & date	Request Orders 12/3/2025
Items Tested	<u>VOGA FLOOR 150 , produced by VOGEL SYSTEM</u>
Results	<i>The detailed test results are given on the following pages of this report (5 pages) .</i>
Report Typist	* Mis. Naglaa Mohamed-Sara Abdel Reheam
Test carried by	Noha Samir
	* Mis . Fatma El Zahraa Fikry
	* H.Eng. Ahmed Said
	* Chem. Amr El Shafey
	* Dr. Abou El Ftouh Abd El Hakem
Authorized by	Prof. Dr. Mostafa Zaki Mostafa
	* The Supervisor of ceramics, Polymer and Solid Matter Department.
	* Management Representative and Quality Assurance Manager.
Issue date	17/4/2025
Condition of Test & Issue	<i>The test specimen 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 .</i>





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To / DIAR special works

Dear Sir.,

With correspondence to your request dated 12/3/2025 concerning the testing sample of VOGA FLOOR 150 , produced by VOGEL SYSTEM , We would like to inform you that the all following needed tests were carried out which namely:

- 1- **Compressive strength test according to ASTM C579**
- 2- **Flexural strength test according to ASTM C580**
- 3- **Tensile strength test according to ASTM D638**
- 4- **Pull-off test to concrete according to ASTM D7234**
- 5- **Hardness test (Shore D) according to ASTM D2240**

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- Braive Instruments.
- 6- All used Machineries and apparatuses were calibrated periodically.

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





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Test results on a sample of VOGA FLOOR 150

produced by VOGEL SYSTEM

Delivered from DIAR special works

1- Compressive strength test according to ASTM C579

No.	Compressive strength (N/mm ²)	The mean value (N/mm ²)
1	77.17	79.01
2	80.53	
3	79.92	
4	78.01	
5	79.43	

2- Flexural strength test according to ASTM C580

No.	Flexural strength (N/mm ²)	The mean value (N/mm ²)
1	43.07	44.02
2	42.53	
3	45.73	
4	44.13	
5	44.66	

3- Tensile strength test according to ASTM D638

No.	Tensile strength (N/mm ²)	The mean value (%)
1	17.93	19.12
2	19.73	
3	19.01	
4	18.66	
5	20.27	





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4- Pull-off test to concrete according to ASTM D7234

on a sample of *VOGA FLOOR 150* - produced by *VOGEL SYSTEM*

Delivered from DIAR special works

No.	Bond strength (N/mm ²)	The mean value (N/mm ²)	Failure mode
1	2.11	1.97	A
2	1.97		
3	1.85		
4	1.94		
5	1.99		

5- Hardness test (Shore D) according to ASTM D2240

No.	Hardness (Shore D)	Mean
1	90	90
2	91	
3	90	
4	90	
5	91	





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*This report was given to you representing only the results for the testing sample of VOGA FLOOR 150 , produced by VOGEL SYSTEM , Delivered from DIAR special works , 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 Scientific Analysis and Tests**

&

SUPERVISOR

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

PROF.DR. MOSTAFA ZAKI MOSTAFA

