



**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 3992 03 2024**

**Client**

**Fly construction chemicals (Millennium-Misr)**

**Authority & date**

**Request Orders 5/3/2024**

**Items Tested**

**Fly WP 07**

**Results**

The detailed test results are given on the following pages of this report (5 pages).

**Report Typist**

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

**Test carried by**

\* **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.**

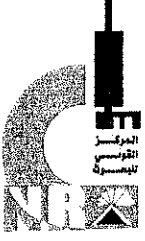
\* **Management Representative and Quality Assurance Manager.**

**Condition of Test & Issue**

**28/4/2024**

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 .





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### **To / Fly construction chemicals (Millennium-Misr)**

**Dear Sir.,**

*With correspondence to your request dated 5/3/2024 concerning the sample of Fly WP 07 , we would like to inform you that the all following needed test was carried out which namely :*

- 1- Compressive Strength Test after 28days according to ASTM C109*
- 2- Flexural Strength Test after 28days according to ASTM C580*
- 3- Adhesive Strength Test after 28days according to ASTM C321*
- 4- Water Permeability test according to EN 12390-8*

*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- Testing Machine was used This type of GALDABINI 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+0.01mm was used for dimensions evaluation.*

*3-Water Permeability tester model 55CO24613Controls made in Italy*

*4- The all used Machinery and the apparatus were calibrated periodically.*

*The following obtained results representing the sample delivered by your company.*





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### **Tests Results**

*On a sample of Fly WP 07*

*Delivered from Fly construction chemicals (Millennium-Misir)*

*(1) Compressive St. Test after 28days according to ASTM C109*

<i>No.</i>	<i>Compressive St.</i> <i>(N/mm2)</i>	<i>The mean Value</i> <i>(N/mm2)</i>
1	30.73	31.15
2	32.11	
3	31.09	
4	30.18	
5	31.62	

*(2) Flexural St. Test after 28days according to ASTM C580*

<i>No.</i>	<i>Flexural St.</i> <i>(N/mm2)</i>	<i>The mean Value</i> <i>(N/mm2)</i>
1	11.82	11.11
2	11.51	
3	10.99	
4	10.73	
5	10.51	

*(3) Adhesive St. Test after 28days according to ASTM C321*

<i>No.</i>	<i>Adhesive St.</i> <i>(N/mm2)</i>	<i>The mean Value</i> <i>(N/mm2)</i>
1	2.07	2.07
2	2.02	
3	2.05	
4	2.13	
5	2.09	



شارع التحرير - الدقي - القاهرة

مباشر ٣٣٣٨٧٨٠٣  
وفاكس ١٨١٠

داخلي ١٤٢٤

٣٣٣٧١٦١٥-٣٣٣٧١٣٦٢  
٣٧٦٠٧٥٤١-٣٣٣٥٥١٩٢



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### Tests Results

On a sample of Fly WP 07

Delivered from Fly construction chemicals (Millennium-Misr)

(4) Water Permeability test according to EN 12390-8

Direction	Time (hrs)	Pressure (bar)	Penetration (mm)	
			Control	Sample
+ ve	72	5	47.3	27.9
			49.5	28.1
			50.3	27.8





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*This report was given to you representing only the results for the delivered sample of Fly WP 07 , delivered form Fly construction chemicals (Millennium-Misr) , 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**

&

**SUPER VISOR OF Material Test Lab**

**PROF.DR. MOSTAFA ZAKI MOSTAFA**

