

ENVIRONMENTAL TEST REPORT

CUSTOMER

Tal-Shir Ilan Bar Ltd

UNIT NAME

STOPPER

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DOCUMENT CONTROL

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1 // DOCUMENT HISTORY

The following table records information regarding released editions of this document and briefly describes their purpose and changes made to them.

Edition ID	Release Date	Author	Purpose and Description of Changes
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2 // DOCUMENT APPROVALS

Author *August 13, 2018*



Chen Zakaim, Technical Writer

Approved By *August 13, 2018*



Dov Carmeli, COO

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1. INTRODUCTION

1.1 // PURPOSE

The purpose of this document is to verify that the **STOPPER** meets all requirements as per the applicable documents.

1.2 // SCOPE

The scope of this Environmental Test Report includes the environmental test results as specified by the customer and by the related resources.

1.3 // GLOSSARY

Term	Description
N.A	Not Applicable
N.C	Not Controlled
PSD	Power Spectral Density
TBD	To Be Defined
RH	Relative Humidity
UUT	Unit Under Test

1.4 // LABORATORY ENVIRONMENTAL CONDITIONS

Temperature	+25±10°C	Humidity	50±30%RH	Air Pressure	1010±10 mbar
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1.5 // APPLICABLE DOCUMENTS

This section contains a list of resources (e.g., documents, files) referenced by or related to this document. All documents' revisions are the latest known on the date of the contract signing.

Main Document Customer Requirements

// Test-specific sources

Test	Document
Immersion IPX8	IEC 60529

1.6 // TEST INSTRUMENTATION

Test	Name	S/N	Calibration Due Date
Immersion IPX8	Magnus Pressure Chamber	1263289	03 June 2019

1.7 // UNIT UNDER TEST OVERVIEW



Figure 1.1 - UUT Overview



Figure 1.2 - UUT Overview

1.8 // EXECUTIVE SUMMARY

The following table summarizes the tests that have been performed in Carmel Environmental Test Laboratories.

Tal-Shir Ilan Bar Ltd performed the functional tests and holds the sole responsibility for the results.

Test Name	Verdict
Immersion IPX8	✓Pass



Statement of Compliance with Test Requirements

We, Carmel Environmental Test Laboratories, declare under our sole responsibility that the STOPPER was tested to comply with the requirements of the applicable environmental test specification.

1.9 // LABORATORY ACCREDITATION

Carmel Environmental Test Laboratories Ltd. Is an accredited Laboratory by the American Association for Laboratory Accreditation – A2LA (see accreditation herein).

A2LA logo in the front page is applicable only to the tests under the scope of Carmel Environmental Test Laboratories accreditations.

Carmel Environmental Test Laboratories has A2LA accreditation to ISO/IEC 17025:2005 for test types as listed in the following link:

<http://www.a2la.org/scopepdf/2881-01.pdf>

The certificate features the A2LA logo at the top center, which includes the ilac-MRA logo and the A2LA logo with a globe. Below the logo, the text reads: "Accredited Laboratory", "A2LA has accredited", "CARMEL-ENVIRONMENTAL TESTS LTD.", "Petach Tikva, ISRAEL", "for technical competence in the field of", "Mechanical Testing". A paragraph states: "This laboratory is accredited in accordance with the recognized international Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017)." On the left side, there is a vertical decorative bar with orange and blue wavy patterns. At the bottom left is a yellow circular seal with "A2LA" and "SEAL 1978" text. At the bottom right, it says "Presented this 12th day of July 2018." followed by a signature and the text: "President and CEO", "For the Accreditation Council", "Certificate Number 2881.01", "Valid to March 31, 2020". At the very bottom, a note reads: "For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation."

2. IMMERSION IPX8TEST

2.1 // UNIT UNDER TEST OVERVIEW

Test Dates	12/08/2018
Customer	Tal-Shir Ilan Bar Ltd
Customer Rep.	Ilan Bar
Unit Name	STOPPER
P/N	N.A
S/N	N.A
Item Manufacturer	Tal-Shir Ilan Bar Ltd
Number of Units	2

2.2 // TEST DESCRIPTION

2.2.1 // TEST PROCEDURE

- A 70 mm concrete cylinder was prepared for the test:
 - A plastic PVC pipeline was insert in the center of the cylinder using as a protective sleeve for threading rods and designed to connect the two opposite molds for concrete casting.
- The 70 mm concrete cylinder was sealed from each side with 2 Stopper units.
- The sealed 70 mm concrete cylinder was **immersed with water** and inserted inside the pressure chamber.
- The chamber pressure raised to **5Bar** (1 Bar of atmospheric pressure + 4 Bar on the chamber) for a duration of **30 minutes**.
- After 30 minutes, a visual inspection performed, **No evidence of water penetration** observed inside the 70 mm concrete cylinder.
- The 70 mm concrete cylinder was sealed again, immersed with water and inserted inside the pressure chamber.
- The chamber pressure raised to **5Bar** (1 Bar of atmospheric pressure + 4 Bar on the chamber) for a duration of **6 hours**.
- After 6 hours a visual inspection performed, **No evidence of water penetration** observed inside the 70 mm concrete cylinder.

2.2.2 // EXCLUSIONS FROM THE TEST METHOD

Not Applicable.

2.2.3 // TEST INSPECTION

Visual Test

Before Test	+
During Test	+
After Test	+

2.3 // TEST RESULTS

In visual inspection at completion of the test, no evidence of water penetration observed inside the cylinder.

Test Result: ✓ Pass

2.4 // TEST PICTURES



Figure 2.1 - UUT during Immersion Test



Figure 2.2 - Chamber Pressure

End of Report