Megaton Systems (Pty) Ltd T/A
MTEx Laboratories

Unit 1 Wierda Place
17 Hilda Avenue
Centurion
0157

VAT/BTW No : 4830273027, Reg No: 2012/055110/07, T0749.

Ontploffingvoorkomingstegnologie
Explosion Prevention Technologies

IP TEST REPORT

Report reference number: MTEx 1326/21.0143

Date Tested:	**2021/03/29 – 2021/03/30**
Date Report was issued:	**2021/03/31**
Validity:	**2031/03/31 or Design Change**
Standards..... :	SANS 60529:2013 "Degree of protection provided by enclosure (IP Code)."
IP rating obtained after testing:	**IP 67**
Applicant's Company Name ..... :	**Digital Matter Embedded (South Africa)**
Applicant's reference..... :	PO-02130
Device.....:	Yabby Housing
Address..... :	NO.7 Pinetree Business Park 63 Brahman Crescent Westfield 1610

General remarks:

- The test results presented in this Test Report relate only to the item or product tested.
- "(see Attachment #)" refers to additional information appended to this document.
- "(see appended table)" refers to a table appended to this document.
- Throughout this document, a point "." is used as the decimal separator.
- This report/certificate shall not be reproduced except in full.

Reviewed by + signature (ExTL):	J. Venter	
Approved by + signature (ExCB): (MTEx Laboratories Technical Signatory)	D. Young	

Tel : +27 12 030 1034 (Offices)
E- mail: info@mtexlab.co.za
Website: www.mtexlab.co.za

mineral resources
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA
AIA Number: E1

employment & labour
Department:
Employment and Labour
REPUBLIC OF SOUTH AFRICA
AIA Number: CL016

Template Ref: MTExDOC 049 Rev 9 (2020/06/29)
Print Date: 2021-03-31

1. DESCRIPTION OF SAMPLE

The enclosure was manufactured from PA6/GF15 Nylon Glass Compound and had an approximate internal volume of 63.5ml. The enclosure had the following overall dimensions: 85mm x 62mm x 24mm (Assembled). The enclosure consisted of two main parts, held together by means of six Philips head self-tapping screws. A sealing element was fitted to one part of the enclosure on the inside of the fasteners.

2. TEST RESULTS AND SETUP:

SANS 60529: 2013 Ed.1.2		
CLAUSE	**TEST**	**RESULT**
13.4	**Dust test for first characteristic numerals 6 (Category 1)**	
Step 1	**Environmental conditions: Temp:** 22.55°C**, R-humidity:** 55.11%, **Pressure:** 1021hPa	
Step 2	**Dimensional evaluation:** +/- 68ml internal volume	
Step 3	**Testing and inspection results:** Vacuum applied to sample: <2 kPa Flow observed: 0 $m^3.min^{-1}$ Time tested: 8 Hours On completion of the test, the sample was opened and inspected for dust ingress: No dust ingress was observed.	
Photo's	   	

SANS 60529: 2013 Ed.1.2		
CLAUSE	**TEST**	**RESULT**
14.2.7	TEST FOR SECOND CHARACTERISTIC NUMERAL 7: TEMPORARY IMMERSION BETWEEN 0.15M AND 1M	
Step 1	Environmental conditions measured: Temp: 22.55°C, R-humidity: 54.94%, Pressure: 1022hPa	
Step 2	The enclosure was submerged in its service position as specified by manufacturer.	
Step 3	The lowest point of the enclosure with a height of less than 850mm was located 1000mm below the surface of the water.	
Step 4	Test duration: 30min.	
Step 5	Water and the test sample temperatures did not differ more than 5K.	

SANS 60529: 2013 Ed.1.2		
CLAUSE	**TEST**	**RESULT**
Step 6	After testing inspection results: The enclosure was visually inspected after the test was completed, no ingress of water was observed.	
Photo's	  	

3. CONCLUSION

The samples complied to IP67 as per the requirements of IEC/SANS 60529.

4. ADDITIONAL NOTES AND RECOMMENDED "BATCH" VERIFICATION TESTING

- Visually inspect for: all the fasteners secured and sealing o-ring(s) present.
- Dust tank test for 2 hours (If Batch Tested) without vacuum applied or..
- IPX7 test (If Batch Tested).

End of Report.