



Ontploffingvoorkomingstechnologie  
Explosion Prevention Technologies



# MTEEx Laboratories

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## IP TEST REPORT

Report reference number:	MTEEx 1958/22.0486
Date Tested:	2022/09/18
Date Report was issued:	2022/10/05
Standards.....:	SANS 60529:2013 "Degree of protection provided by enclosure (IP Code)."
IP rating obtained after testing:	IP 68
Applicant's Company Name .....	Digital Matter Embedded (South Africa)
Applicant's reference.....:	COD
Device.....:	G70 Rugged Housing
Address.....:	No.7 Pinetree Business Park 63 Brahman Crescent Westfield 1610
General remarks:	<ul style="list-style-type: none"> <li>- The test results presented in this Test Report relate only to the item or product tested.</li> <li>- "(see Attachment #)" refers to additional information appended to this document.</li> <li>- "(see appended table)" refers to a table appended to this document.</li> <li>- Throughout this document, a point "." is used as the decimal separator.</li> <li>- This report/certificate shall not be reproduced except in full.</li> </ul>

Reviewed by + Signature (ExTL):	H. de Wet	
Approved by + Signature (ExCB): (MTEEx Laboratories Technical Signatory)	J. Venter	



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## 1. DESCRIPTION OF SAMPLE

The enclosure was manufactured from PA6/GF15 Nylon Glass Compound. The enclosure had the following overall dimensions: 25mm x 65mm x 110mm (Assembled). The enclosure consisted of two main parts, held together by means of four Philips head self-tapping screws. A sealing element was fitted to one part of the enclosure on the inside of the fasteners. A gland formed part of the moulded construction.



## 2. TEST RESULTS AND SETUP:

SANS 60529: 2013 Ed.1.2		
CLAUSE	TEST	RESULT
13.4	<b>Dust test for first characteristic numerals 6 (Category 1)</b>	
Step 1	<b>Environmental conditions: Temp:</b> 23.98°C, <b>R-humidity:</b> 45.3%, <b>Pressure:</b> 1022hPa	
Step 2	<b>Dimensional evaluation:</b> +/- 100ml internal volume	
Step 3	<b>Testing and inspection results:</b> Vacuum applied to sample: <2 kPa Flow observed: 0 m <sup>3</sup> .min <sup>-1</sup> 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
14.2.8	TEST FOR SECOND CHARACTERISTIC NUMERAL 8 CONTINUOUS IMMERSION SUBJECT TO AGREEMENT	
Step 1	Environmental conditions measured: Temp: 24.3°C, R-humidity: 42.18%, Pressure: 1024hPa	
Step 2	Unless there is a relevant product standard, the test conditions are subject to agreement between manufacturer and user, but they shall be more severe than those prescribed in 14.2.7 and they shall take account of the condition that the enclosure will be continuously immersed in actual use. Duration of test: 60 minutes Testing depth : 1.0 meter	
Step 6	After testing inspection results: The enclosure was visually inspected after the test was completed; no ingress of water was observed.	

**3. CONCLUSION**

The samples complied to IP68 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.
-  IPX8 test (If Batch Tested).

**End of Report.**