



Mining And Surface Certification (Pty) Ltd

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SURFACE RESISTIVITY TEST (HALO RANGE OF STRIP LED)

1. SUBJECT

The surface resistance tests of non-metallic ducting material were conducted in accordance with

SANS 60079- 0: 2012 “Explosive atmospheres – Part 0: Equipment – General Requirements”.

- **Clauses 7.4 and 26.13 Surface resistance test of parts of enclosures of non-metallic materials**

2. DESCRIPTION

2.1 GENERAL

The LED strip sample comprised of a train of surface mounted LED components and resistors connected in parallel between two conductors. The entire train of components are encapsulated in a clear and flexible silicon mould.

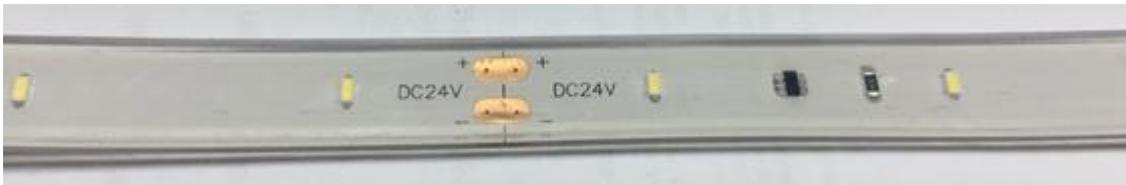


Figure 1

3. SELECTION OF SPECIMEN

The test sponsor supplied the samples for testing.

/... TEST METHODS AND RESULTS:

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4. TEST METHODS AND RESULTS

The unit was tested as required by the standard and results are recorded below (According To SANS 60079-0):



Figure 2

Table 1:

Description	Results	Comments
<p>The sample was conditioned at 50% RH ($\pm 5\%$) at an ambient of 23°C ($\pm 2^{\circ}\text{C}$).</p> <p>Two probes were positioned / painted 10mm from each other and 100mm x 1mm on the surface of the material. The following results were obtained:</p>	<ul style="list-style-type: none"> • 510.0Vdc was applied to the samples. • The current under testing was 100nA. • This calculates to a resistance of $0.51 \times 10^9 \Omega$ ($0.51\text{G}\Omega \ll \text{Allowed } 1\text{G}\Omega$). 	None

5. CONCLUSION

From the above, the samples **COMPLIES** with the static requirements of clause 7.4 of SANS 60079-0.

Please do not hesitate to contact me if any of the above is unclear or needs further discussion.


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