



# Mining And Surface Certification (Pty) Ltd

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## HALO Range of Strip LED flammability test (NON-METALLIC MATERIALS)

### 1. SUBJECT

The surface and flame resistance tests of the silicon encapsulated LED light strip was conducted in accordance with

**SANS 60079-1:2012 Ed 5: Explosive atmospheres – General Requirements:**  
**Clause 19.3.2: Flammability**  
**IEC 60695-11-10: Flammability Classification – Vertical Testing (v-2) Method B**

### 2. DESCRIPTION

#### 2.1 GENERAL

The test sponsor supplied a sample for evaluation. 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.



### 3. SELECTION OF SPECIMEN

12.7cm sample sections were marked and cut to size. As per the standard, **“two sets of five specimens are tested. The two sets are conditioned under different conditions”**

### 4. TEST METHODS AND RESULTS

The unit was tested as required by the standard and results are recorded below (Flammability Classification - IEC 60695-11-10):

Photos and results are held in the MASC project file.

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## 5. DESCRIPTION

Table 1:

Description	Results	Comments
<ul style="list-style-type: none"> <li>A sample is supported in a vertical position and a flame is applied to the bottom of the specimen.</li> <li>The flame is applied for ten seconds and then removed until flaming stops</li> <li>The flame is reapplied for another ten seconds and then removed.</li> </ul>	<ul style="list-style-type: none"> <li>The samples did not burn with flaming combustion for more than 30 seconds after either test flame application.</li> <li>Total flaming combustion time did not exceed 250 seconds for each set of 5 samples.</li> <li>The samples did not burn with flaming or glowing combustion up to the specimen holding clamp.</li> <li>The samples did not drip flaming particles.</li> <li>The samples did not present a glowing combustion that remained for longer than 60 seconds after removal of the test flame</li> </ul>	None

## 6. CONCLUSION

From the above results, the samples **COMPLIES** with the electrical and flame resistance requirements of the IEC 60695-11-10: **Flammability** Classification standard.

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



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