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**MASC Report No: 20-8474**  
**Page: 1 of 3**

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## HQB2 Tape Assessment

### 1. SUBJECT

The HQB2 Tape assessment was conducted in accordance with:

<b>NCB 245</b>	<b>:1985</b>	<b>“Fire and Electrical Resistance Properties of Supported and Unsupported Sheeting” Clause 7: Electrical Resistance</b>
<b>SANS 60079-0</b>	<b>:2019</b>	<b>General requirements “Clause 7.4.2: Electrical resistance”</b>
<b>SANS 60079-11</b>	<b>:2012</b>	<b>Intrinsic safety “Clause 10.3: Dielectric Strength”</b>
<b>SANS 60079-18</b>	<b>:2016</b>	<b>Encapsulation “Clause 8.1.1: Water absorption”</b>

### 2. DESCRIPTION

#### 2.1 GENERAL

#### 2.2

The following Butyl tape material was subjected for testing in black and grey colours:

#### HQB2

B2 is a similar product to B1 but with enhanced adhesive characteristics for more demanding applications where there are requirements for a degree of bonding particularly difficult materials such as polyethylene in the damp proof/jointing market. For this sector, B2 has a lower water vapour permeability than B1.

### 3. SELECTION OF SPECIMEN

The test sponsor supplied samples for testing.

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## MASC Report 20-8474

## 4. TEST METHODS AND RESULTS

The samples were evaluated as per the various standards listed above and results are recorded below.

## HQB2:

Description	Results	Classification	Verdict
<p><b><u>Electrical Resistance:</u></b> <b><u>(NCB 245 Clause 7 &amp; SANS 60079-0 clause 7.4.2)</u></b></p> <p>The HQB2 tape was assessed as below:</p> <p>The sample was conditioned at 50% RH (<math>\pm 5\%</math>) at an ambient of 23°C (<math>\pm 2^\circ\text{C}</math>).</p> <p>Two probes were positioned / painted 10mm from each other and 100mm x 1mm on the surface of the material. A voltage was ramped up over a period of 10 seconds to a maximum of 500Vdc. The following results were obtained:</p>	<ul style="list-style-type: none"> <li>The current under testing was 1.2<math>\mu\text{A}</math> respectfully</li> <li>This calculates to a resistance lower than the allowed 600M<math>\Omega</math> for cable sheaths in a hazardous area susceptible to static discharges.</li> </ul>	<ul style="list-style-type: none"> <li>Anti-Static discharge properties</li> </ul>	<ul style="list-style-type: none"> <li>Compliant</li> </ul>
<p><b><u>Dielectric Strength:</u></b> <b><u>(SANS 60079-11 Clause 10.3)</u></b></p> <p>The HQB2 tape was assessed as below:</p> <p>The sample was conditioned at 50% RH (<math>\pm 5\%</math>) at an ambient of 23°C (<math>\pm 2^\circ\text{C}</math>) for a period of 24 hours.</p> <p>Two probes were positioned on the material surface. A Voltage was ramped up over 10 seconds to a maximum of 510Vac for 60s. Break-through current was measured to determine the material's dielectric properties.</p>	<ul style="list-style-type: none"> <li>The current under testing was below 0.00A</li> <li>No current breakthrough or flashover was recorded.</li> </ul>	<ul style="list-style-type: none"> <li>Good electrical insulation</li> </ul>	<ul style="list-style-type: none"> <li>Compliant</li> </ul>
<p><b><u>Water Absorption:</u></b> <b><u>(SANS 60079-18 Clause 8.1.1)</u></b></p> <p>The HQB2 tape was assessed as below:</p> <p>A dry sample of each material was weighed and immersed for 24hrs in water in a temperature-controlled environment.</p> <p>The samples were then removed from the water, wiped down and weighed within 1 minute after removal</p>	<ul style="list-style-type: none"> <li>The increase in mass may not exceed 1% of previous weight.</li> <li>No increase in weight of any sample was recorded.</li> </ul>	<ul style="list-style-type: none"> <li>Excellent water dissipation.</li> <li>Suitable to prevent water ingress.</li> </ul>	<ul style="list-style-type: none"> <li>Compliant</li> </ul>

## 5. CONCLUSION

The Butyl Tape described in this report were tested in accordance with and **COMPLIED** with the select clauses.

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**6. MARKING**

Production units may be marked to comply with any/all of the specific clauses of the above-mentioned standards as indicated in the table above.



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**TECHNICAL SPECIALIST**



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**TECHNICAL SPECIALIST**

**Mining And Surface Certification**

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