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## HQB1 WRAS Tape Assessment

### 1. SUBJECT

The HQB1 WRAS Tape assessment was conducted in accordance with:

**SANS 60079-11 :2012 Intrinsic safety "Clause 10.3: Dielectric Strength"**  
**SANS 60079-18 :2016 Encapsulation "Clause 8.1.1: Water absorption"**

### 2. DESCRIPTION 2.1 GENERAL

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

#### HQB1 WRAS

B1WRAS is a preformed high performance polyisobutylene (PIB) based sealing tape available in single strand rolls. This product main application is where joints need to be formed to seal against air and water ingress in steel water tanks (Braithwaite Tanks and similar tanks). The product is cost effective, nontoxic, forms an instant seal and requires no tools to apply and has a life expectancy in excess of 25 years when correctly used and applied.

### 3. SELECTION OF SPECIMEN

The test sponsor supplied samples for testing.

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#### 4. TEST METHODS AND RESULTS

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

##### HQB1:

Description	Results	Classification	Verdict
<p><b><u>Dielectric Strength:</u></b> <b><u>(SANS 60079-11 Clause 10.3)</u></b></p> <p>The <b>HQB1 WRAS</b> 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 <b>HQB1 WRAS</b> 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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