PRODUCT INFORMATION

Product Description:
DetecTape™ H2 is a passive colorimetric (color changing) self-fusing silicone tape designed to detect hydrogen gas (H₂) leaks in fuel cell, transmission, storage, and generation facilities.

When in contact with concentrated hydrogen gas, the tape color changes from light gray to dark black in the event of a leak due to damage or seal failure.

Features:
• No Adhesive - Bonds to itself on contact
• Can be used on all metal substrates
• Little to no surface preparation required
• Chemical and UV resistant
• Operating Temperature range *
  -65°F up to +450°F (-54°C to +232°C)
• Easy to install
• Changes color within minutes of detection
• Works with commonly used detection tools
• Requires no power

APPLICATION EXAMPLES

DetecTape™ H2 can be used on hydrogen pipelines and other objects where tape can be wrapped around itself.

Application examples include but are not limited to connections, fittings, valves, welded seams, joints, flanges, and areas susceptible to vibration damage.

GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Temperature Range</td>
<td></td>
<td>-65°F to +450°F</td>
</tr>
<tr>
<td>Intermittent Temperature Range</td>
<td></td>
<td>-85°F to 500°F</td>
</tr>
<tr>
<td>Cold Brittle Point Max</td>
<td>ASTM D-2137</td>
<td>-85°F</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>Fed STD 601</td>
<td>3% Max by weight</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ASTM D-412</td>
<td>700 PSI Minimum</td>
</tr>
<tr>
<td>Elongation</td>
<td>ASTM D-412</td>
<td>300% Minimum</td>
</tr>
<tr>
<td>Tear Resistance</td>
<td></td>
<td>85 PSI</td>
</tr>
<tr>
<td>Durometer Hardness</td>
<td></td>
<td>50 Shore A</td>
</tr>
<tr>
<td>Thickness Tolerance</td>
<td>+/- 0.002 in</td>
<td>10 mil (0.254 mm)</td>
</tr>
<tr>
<td>Width Tolerance</td>
<td>+/- 0.125 in</td>
<td>10 mil (0.254 mm)</td>
</tr>
</tbody>
</table>

* Reaction time may be affected based on tape or ambient temperature. Warmer temperatures are known to improve reaction speed. Colder temperatures may slow reaction speed.

SURFACE PREPARATION RECOMMENDATIONS

Inspect intended detection point and surrounding area for contaminants. Wipe area clean of debris or fluids.

APPLICATION INSTRUCTIONS

STEP 1 Pull tape strip from roll up to perforation point.

STEP 2 Tear away tape strip from roll at perforation point and remove liner backing. Ensure blue guideline is facing outward for clear visibility.

STEP 3 Press tape strip firmly approximately 1 inch (2.5 cm) away from the intended detection point and begin the first wrap with one 100% complete overlap.

TIP: Tightly stretching the tape around irregular contours can provide a cleaner presentation.

DISCLAIMER: Midsun Specialty Products, Inc. (MSP) warrants that the product(s) represented within conform(s) to its/their chemical and physical description and is appropriate for the use as stated on the respective technical data sheet when used in compliance with MSP written instructions. Since many installation factors are beyond the control of MSP, the user is obligated to determine the suitability of the products for the intended use and assume all risks and liabilities in connection herewith. MSP liability is stated in the standard terms and conditions of sale. MSP makes no other warranty either expressed or implied. All information contained in the respective technical data sheet(s) should be used as a guide and is subject to change without notice. This document supersedes all previous revisions.

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APPLICATION INSTRUCTIONS (continued)

STEP 4 | Continue stretching the tape strip while wrapping with a half overlap, using the blue guideline as half point, across desired area until approximately 1 inch (2.5 cm) past the intended detection point.

STEP 5 | Finish the wrap by ending the remaining tape strip with a 100% complete final overlap. Press on wrap firmly.

DETECTION INSTRUCTIONS

During routine or spot inspections, visually examine tape to determine if a hydrogen leak has been detected. Use images below as a guide to visual indication of a leak.

NO LEAK DETECTED

Detection point has not been exposed to any significant concentrations of hydrogen gas. No leak is present.

HYDROGEN LEAK DETECTED

Detection point is experiencing a hydrogen leak. Contact your local maintenance team immediately for repair or replacement.

*NOTE* Depending on the severity, duration, or location of the leak, the localized connection may be partially or gradually darkened. In the case of a partial darkening, contact your maintenance team for confirmation of a leak.

STORAGE / HANDLING / SHELF LIFE

Storage | Store in a cool and dry area, away from direct sunlight.

Handling | Keep tape roll clean and free of dust, dirt or debris using the provided container.

Shelf Life | Adhere to “Use By” date located on tape roll or case label.

TAPE REMOVAL

Use a utility knife, blade or a scissor to easily remove tape from connection. Cut away tape and dispose of in a proper trash receptacle.

ORDERING INFORMATION

Submit purchase orders directly to Midsun Specialty Products, Inc. or inquire with your current hydrogen gas detection accessory vendor for details.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Coverage</th>
<th>Unit Info</th>
<th>Case Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT-H210015-PF4</td>
<td>DetecTape™ H2 Perforated every 4in (10 cm) Up to 40 applications</td>
<td>Up to 40 detection points on 1/4in (6mm) average diameter pipelines or fittings.</td>
<td>1 roll per unit Unit Spec: 1in x 15ft (25mm x 4.57m) Unit Wt: 0.15 lb (68g)</td>
<td>24 rolls per case Case Dim: 12in x 9.25in x 4in (30.5cm x 23.5cm x 10.2cm) Case Wt: 4.4lbs (2kg)</td>
</tr>
<tr>
<td>DT-H210015-PF8</td>
<td>DetecTape™ H2 Perforated every 8in (20 cm) Up to 20 applications</td>
<td>Up to 20 detection points on 1/2in (12mm) average diameter pipelines or fittings.</td>
<td>1 roll per unit Unit Spec: 1in x 15ft (25mm x 4.57m) Unit Wt: 0.15 lb (68g)</td>
<td>24 rolls per case Case Dim: 12in x 9.25in x 4in (30.5cm x 23.5cm x 10.2cm) Case Wt: 4.4lbs (2kg)</td>
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Additional information including test data, chemical resistance sheets, and safety data sheets are available at http://www.detectape.com or send a request for information via email to info@detectape.com

Passive Leak Detection Using Commercial Hydrogen Colorimetric Indicator


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