

PRODUCT INFORMATION

Product Description:

DetectTape® 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

DetectTape® 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.

APPEARANCE

Appearance Packaged (No Hydrogen Detected)	Gray tape roll with a blue guideline.
Appearance Applied (No Hydrogen Detected)	Gray tape with a blue guideline.
Appearance Applied (Hydrogen Detected)	Black tape with a blue guideline.
Reaction Time (Based on hydrogen leak rate of 110cc/min at 15 psi / 1 bar)	Noticeable color change can be seen within 2-3 minutes of exposure. Significant color change within 30 minutes.

PART INFORMATION

Part #	Roll Information
DT-H210015-PF4	Detect up to 40 1/4 in diameter connections. Perforated every 4 in. Roll Size: 0.010 in x 1.00 in x 15 ft
DT-H210015-PF8	Detect up to 20 1/2 in diameter connections. Perforated every 8 in. Roll Size: 0.010 in x 1.00 in x 15 ft

SPECIFICATIONS

Property	Test Method	Value
Continuous Temperature Range		-65°F to +450°F -54°C to +232°C
Intermittent Temperature Range (24 hrs)*		-85°F to 500°F -65°C to 260°C
Cold Brittle Point Max	ASTM D-2137	-85°F -65°C
Water Absorption	Fed STD 601 Method 6251	3% Max by weight
Tensile Strength	ASTM D-412	700 PSI Minimum
Elongation	ASTM D-412	300% Minimum
Tear Resistance		85 PSI
Durometer Hardness		50 Shore A
Thickness Tolerance		+/- .002 in +/- 0.05 mm
Width Tolerance		+/- 0.125 in +/- 3.175 mm

* 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.

DISCLAIMER: Element One Inc 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 Element One Inc written instructions. Since many installation factors are beyond the control of Element One Inc, the user is obligated to determine the suitability of the products for the intended use and assume all risks and liabilities in connection herewith. Element One Inc liability is stated in the standard terms and conditions of sale. Element One Inc 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. Updated August 2023.



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