

# FACT SHEFT

# **BRAKE HOSE TESTING TOP-12 FAQs**

Answers to some of your most frequently asked questions

Brake hose testing is a complex test category. It involves a large variety of equipment and test setups due to differing applications and industry requirements. This FAQ will help improve basic understanding of the test category and facilitate communication and discussion of such test requests.

# 1. What is brake hose testing?

Confirmation that automotive brake hose assemblies comply to federal law or SAE standards. The testing ensures that brake hoses are strong, durable, and resistant to heat and pressure, which are critical factors for safe and reliable brake system performance.

# 2. What is the value or purpose for conducting brake hose testing?

To offer an independent, third party verification for proving the necessary DOT/NHTSA conformity as required by law for sale or use. Overall, the purpose of brake hose testing is to prevent brake system failures that could lead to accidents, injuries, or fatalities on US roads.

#### 3. What information is needed to request a quotation for brake hose testing? The test lab would need to know:

- What standard (or standards) the brake hose is being tested to
- The type of brake hose to be tested
- 4. How many samples need to be submitted for testing?

The number of required samples depends on the specification(s) you are testing to and the construction of the brake hose. Consult with your salesperson or project engineer for more information.

# 5. How long do the samples need to be cut to?

The sample length depends on construction of the sample and the test(s) being performed. The appropriate standards will define "Free Length" based on the diameter and wall



thickness of the hose. Consult with your salesperson or project engineer for more information.

# 6. What is "free length?"

Free length is defined by FMVSS 106 as: "... the linear measurement of tubing exposed between the end fittings of a hose assembly in a straight position." It's important to note that all brake hose samples are measured by "free length" as opposed to overall length.

#### 7. What samples shall be submitted for brake hose testing?

Intertek can test all four types of brake hoses listed in the FMVSS 106 standard. These include:

- Hydraulic
- Rubber Air Brake
- Vacuum
- Plastic Air Brake hoses

### 8. What are the commonly referenced brake hose testing standards?

These are some of the most commonly used:

- FMVSS / CMVSS 106
- SAE I1401 for Hydraulic
- SAE I1402 for Rubber Air
- SAE I1403 for Vacuum
- SAE 1844, SAE 11331 and SAE 12494 for Plastic Air

#### 9. How long does a brake hose test typically last?

Plastic air brake hoses typically take 6-8 weeks for the completion of testing. All other types are 4-6 weeks.

# 10. Can I send you the components and have you assemble and test them?

No, Intertek typically only tests complete brake line assemblies, FMVSS 106 requires that brake hoses be tested as complete assemblies, including the end fittings.

# 11. Does Intertek certify brake hoses? When will I receive my certificate?

Intertek does not "certify" brake hoses and does not issue a certificate. The DOT marking is self-declared. Intertek testing is a verification that may be submitted to NHTSA/DOT as proof of compliance or to a certification body if an actual certificate is required.

#### 12. Do I have to test each model separately?

If brake hoses have different materials, constructions, or other substantial differences, it may be necessary to test each assembly separately to ensure that it meets the minimum performance standards outlined in FMVSS 106. We generally state any significant change in the assembly should trigger separate testing to FMVSS106 in its entirety.

