

3 Test Preparation and Evaluation

3.1 Resources.

3.1.1 Facilities.

3.1.1.1 Calibration. The test facilities and equipment shall be in good working order and shall have a valid calibration label.

3.1.1.2 Alternatives. Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this standard shall be determined correctly with respect to their physical definition.

3.1.2 Equipment. See individual tests in Section 4.

3.1.3 Test Vehicle/Test Piece. The vapor line assembly supplier is responsible for the testing of each quick-connector part number to the requirements of Section 4 for engineering source approval. A minimum of five (5) samples from two (2) lots must be tested to these requirements. All samples must pass the requirements as tested in each environment.

3.1.3.1 Engineering Source Approval. Engineering source approvals generated through testing to prove compliance to this specification are specific for size, design, construction, supplier specifications and manufacturing procedures, and all materials incorporated into the quick-connector.

3.1.4 Test Time.

Calendar time: See Section 4.

Test time: See Section 4.

Coordination time: See Section 4.

3.1.5 Test Required Information. Information on the quick-connector body material and the O-rings used must be provided by the vapor line assembly supplier to the GM Materials Engineer issuing the approval. The O-ring used in the quick-connector must have been used in all quick-connectors tested and approved to this specification. The engineering source approval will be specific for the connector body material and O-rings tested, and will be listed in the GM Materials Approved Source List.

3.1.6 Personnel/Skills. Per the requirements for lab accreditation.

3.2 Preparation. See Section 4.

3.3 Conditions.

3.3.1 Environmental Conditions. Unless otherwise specified, test shall be performed at $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$. Quick-connectors must be tested for conformance to all the tests detailed in Section 4.

3.3.2 Test Conditions. Deviations from the requirements of this standard shall have been agreed upon. Such requirements shall be specified on component drawings, test certificates, reports, etc.

3.4 Instructions. See Section 4.

3.5 Data. Not applicable.

3.6 Safety. This Engineering Standard may involve safety requirements for hazardous materials, the method of operations and equipment. This standard does not propose to address all the safety issues associated with its use. It is the responsibility of the user of this standard to ensure compliance with all appropriate safety and health practices. This would include any specific training that may be required. The safety and health standards include site specific rules and procedures, company rules and procedures, and Government Standards. Contact shall be made with the appropriate site Safety and Health personnel for further direction and guidance in these matters.

3.7 Documentation. Samples of components or material released to this standard shall be tested for conformity with the requirements of this standard and approved by the responsible GM Department prior to the start of delivery of production level components or materials.

Any change to the component or material, e.g., design, function, properties, manufacturing process and/or location of manufacture requires a new release of the product. It is the sole responsibility of the supplier to provide the customer, unsolicited, with documentation of any change or modification to the product/process, and to apply for a new release.

If not otherwise agreed to, the entire verification test shall be repeated and documented by the supplier prior to start of delivery of the modified or changed product. In some cases, a shorter test can be agreed to between the responsible GM department and the supplier.

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