

Effective Date: 11/14/2019

## **Q400: Material & Performance Testing, Reports and Certifications**

**Material test** - The supplier shall provide for each shipment actual (defined as traceable to the finish product material) material test reports, certificates of analysis, or any other such documented objective evidence that demonstrate the materials used in the manufacture of the product conform to the properties and characteristics (chemical, mechanical, or physical properties, etc.) as stated in material's specifications cited in the product's design documentation. These required characteristics or properties may be described in those specifications as chemical composition, physical/mechanical properties, quality conformance tests, or certificates of analysis, etc. The Test Reports/Certifications shall list each of requirements as shown in the material specification(s) including tolerances for each characteristic, and the actual test or analysis results. The reports/certifications shall include and be traceable to the specific material lots incorporated in the product being delivered. The requirement applies to details or components of assemblies listed in the product's design description.

Typical (defined as sample data that represents an average of the material used) test reports may be provided upon written approval from Aerojet Rocketdyne buyer, approvals must accompany shipment.

**Performance test** - When performance tests are required (Pressure, leak, electrical, functional, acceptance, etc.) each shipment shall be accompanied by actual test results. Reported results must include test parameters, specification, traceability, and material(s) to product(s) delivered. In addition, reports shall bear signature and date of the responsible representative of the agency performing the test. The specifications must be listed, including the revision letter(s) or revision number(s) and amendments. When parts are serialized, serial numbers must appear on the report(s).

### **Deliverables:**

Each shipment shall have objective evidence of a legible copy of applicable test reports of the process or processes performed and include the results for each unit examined indicating either accepted or rejected. When parts are serialized, serial numbers must appear on the report(s). In a case where serial numbers are not required, traceability information must be provided (I.e. Lot number). Results must be identifiable with test parameters, specifications, and material(s) to product(s) delivered. Reports must bear the date and signature of a responsible representative of the agency performing the test(s). The specifications must be listed, including the revision letter(s) or revision number(s).