

Supplier Flow-Down Requirements

Unless otherwise stated on Thixocast's (Buyer) purchase order, the following supplier quality flow-down requirements apply to all orders, as applicable to the nature of the products/services provided.

Quality Clauses:

Q1. Quality Control (AS 9100D Clause 8.4.1; Clause 8.4.3k)

The Supplier must ensure that the clauses associated with this purchase order are flowed down to all its sub-tier suppliers. The Supplier is required to direct all its external providers to ensure that the requirements of the final product are met.

Q-2. Quality System (AS 9100D Clause 8.4.3k)

The Supplier must have a Quality System consistent with industry standards. The Buyer reserves the right to review the Supplier's Quality system.

Q-3. Buyer Review (AS 9100D Clause 8.4.3f)

During the performance of this Order, the Buyer reserves the right to review, verify and/or analyze the Supplier's Quality and/or Inspection System and Manufacturing processes at the Supplier's facilities. The Buyer's representative must notify the Supplier one calendar week in advance of the intended review start date and duration. The Buyer's inspection/acceptance of product prior to shipment is not required unless otherwise specified in this purchase order.

Q-4 Notification of Process Changes (AS 9100D Clause 8.4.3d)

The Supplier must notify buyer in writing of changes in product and/or process, changes of its own suppliers, changes of manufacturing facility location and, where required, obtain the Buyer's written approval.

Q-5 Product Disposition (AS 9100D Clause 8.4.3k)

The Supplier must obtain the Buyer's written approval for nonconforming product disposition.

Q-6 Requirements for Sampling (AS 9100D Clause 8.4.3j)

Where the Supplier utilizes sample inspection plans or other statistical techniques, these must be statistically valid. If the sample contains rejected items, the Supplier must, for the rejected feature or parameter, use a documented method, such as 100% screening to assure the buyer that zero rejects are present.

Q-7. Product Acceptance (AS 9100 Clause 8.4.3b)

The Supplier must follow all requirements stated on the purchase order, drawing, data specifications and process instructions to ensure product conformity, documentation and records are obtained.

Q-8 Test Specimens (AS 9100D Clause 8.4.3k)

When requested by the Buyer or its customers, the Supplier will provide test specimens for inspection/verification, investigation and/or auditing purposes.

Q-9 Design and Development Control (AS 9100D Clause 8.4.3g)

When design and development activities are applicable to the product/services provided by Supplier, the Supplier agrees to maintain adequate design and development control including proper review, validation, and verification activities. The Supplier also agrees to control design changes and maintain records as appropriate.

Q-10 Qualification and Awareness of Personnel (AS 9100D Clause 8.4.3c; 8.4.3m)

The Supplier must employ competent personnel to ensure the Buyer's requirements are met. The Supplier must ensure that their employees are aware of their contribution to product or service conformity, their contribution to product safety, and the importance of ethical behavior.

Q-11. Record Retention (AS 9100D Clause 8.4.3k)

The Supplier must maintain records regarding the Buyer's purchase order, specifications, drawings, process requirements, inspection/verification instructions and other relevant technical data. Records must be maintained by the Supplier for a minimum of 10 years or as specified by the Buyer after which the Supplier agrees to either return or destroy related records.

Q-12. Access to Facilities (AS 9100D Clause 8.4.3l)

The Supplier agrees to permit access to the Supplier's facility for surveying/auditing, if needed. The survey/audits may include personnel from the Buyers, the Buyer's customer representative and/or regulatory authorities, and must include access to all records applicable to the Buyer's product or orders.

Q-13. Counterfeit Parts Detection and Avoidance System Requirements (AS 9100D Clause 8.4.3k)

The Supplier must detect and prevent the use of counterfeit, suspect counterfeit, unapproved, or suspect unapproved parts.

Q14. Supplier Performance Expectations (AS 9100D Clause 8.4.3e)

Unless otherwise specified, the Supplier agrees to adhere to meeting or exceeding 90% on-time delivery of product and 90% product quality ratings.

Q-15 Notification of Nonconformance

The Supplier must notify the buyer of any major nonconforming product or sub-component of the product verbally and in writing as soon as nonconformance is detected. Major nonconformance means the product or a sub-component of the product will not meet a specification.

Q-16. Requirements for Conformance

Neither surveillance, inspection and/or tests made by the Buyer or the Buyer's representatives at either the Supplier's or the Buyer's facility, nor the Supplier's compliance with all applicable product assurance requirements relieve the Supplier of the responsibility to furnish items which conform to the requirements of the purchase order.

Q-17. Special Processes

Supplier Flow-Down Requirements

The Supplier and any of its subcontractors performing special processes, that are non-standard according to their approved process flow, must submit a certification listing the specification designation/number and that the special process was performed in accordance with such specification.

Q-18. Traceability requirements

The Supplier must provide means of end item traceability. The Supplier may use the original manufacture Lot/Date Code/Serial number or their own method for identifying the end item product as required for proper traceability. Serialized shipments must have the serial numbers listed on the shipper and on the corresponding intermediate packaging.

Q-19. Identification and Revision Status

The Supplier must maintain the identification and revision status of all documented information provided by the Buyer, including but not limited to specifications, drawings, process requirements, inspection/verification instructions and other relevant product/order related documentation.

Q-20. Calibration

The Supplier must maintain the calibration of equipment(s) used to manufacture, test, control, monitor, or measure processes. The calibration standards used must be traceable to international or national measurement standards; when no such standards exist, the basis used for calibration or verification is retained as documented information.

Q-21. Packaging & Shipping

The Supplier must use special packaging as required on this order, or when not specified, Supplier may use specially designed shipping containers and/or good commercial practices as deemed necessary to prevent shipping damage. As a minimum, the label must contain the following information: Part number and date of manufacture and Buyer's purchase order number.

Q-22. Supplier Corrective Action

In response to Buyer-initiated corrective action requests, the Supplier must advise the Buyer of root cause determination, corrective action taken to prevent recurrence of reported problems and/or discrepancies and effective dates of the planned corrective action(s). The Supplier must maintain a corrective action system that determines the effectiveness of such corrective actions, and that prevents shipment of nonconforming articles without prior approval from Buyer.

Q-23. First Article Inspection

When requested, the Supplier must perform a First Article Inspection (FAI) of one item from the first production lot, or as required by the Buyer. The FAI must consist of recorded actual drawing, specification values, and/or requirements (dimensional, test data, processes, drawing notes, etc.) and may be documented on the drawing or on a separate report form. The first article item must be clearly identified by an external identification marking, and a copy of the FAI must accompany the First Article part. The Buyer reserves the right to verify any or all characteristics documented on the FAI report at the Supplier's facility.

Q-24. Source Inspection

Source Inspection may be conducted by the Buyer at the Supplier's facilities or where designated in this Order prior to shipment. Inspection/test and/or in-process inspection/test of the articles specified in this Order must be performed by the Supplier and may be witnessed by the Buyer's Quality Representative. Prior to fabrication start, the Supplier and the Buyer must determine the process steps at which Source Inspection must be conducted. The Supplier must notify the Buyer of the scheduled inspection/test five (5) days in advance. The method of product release must be a stamp or signature by the Buyer's Quality Representative on the Supplier's shipping or inspection documents.

Q-25. Certification of Material(s) and Process(es)

When noted on the purchase order, the Supplier must submit certifications for raw material (chemical and physical characteristics) and/or processes (stating specification) used in the manufacturing of the item(s). If outside processing is performed, a certification from subcontractor is to be provided.

Q-26. Certificate of Conformance

The Supplier must furnish a Certificate of Conformance either by email or with each delivery attesting that each item of hardware and/or software conforms to all requirements of the Buyer's specification and purchase order and that all required test and inspections have been performed.