
***TEIJIN* CARBON**

**SUPPLIER QUALITY
REQUIREMENTS MANUAL**

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INTRODUCTION AND SCOPE

Teijin Carbon America, Inc. (TCA), a subsidiary of Teijin Limited, is a global leader in carbon fiber manufacturing. Headquartered in Greenwood, South Carolina and a location in Rockwood TN, the two facilities include carbon fiber, and oxidized pan fiber (OPF) production lines as well as auxiliary operations such as chopping, milling and pelletizing. These products service general industrial and commercial markets for composite materials.

Teijin Carbon America, Inc. strives to consistently supply the highest quality products to our customers. To this end, Teijin Carbon America, Inc. has developed a comprehensive quality system to demonstrate its ability to consistently provide product that meets customer and applicable regulatory requirements, and to address customer satisfaction through the effective application of the system, including continual improvement and the prevention of nonconformity.

This system establishes controls throughout the entire manufacturing cycle from purchase orders to final product delivery. The quality system complies with the international standard AS9100 rev. D. TCA was initially awarded ISO certification October 1996 by Bureau Veritas, Inc. Because of market and customer demands, TCA achieved certification to AS9100 in February 2018.

TCA realizes that we cannot achieve our goals for excellence without the full support, commitment and expertise of our supply base. An integral part of this system is to ensure that purchased product or service conforms to specified requirements. **To achieve this, it is important that you ensure competence of your personnel, including necessary qualifications and effective interactions with TCA's QMS.** The extent of control applied to purchased products, services and subsequent suppliers, is dependent upon the effect of the product or service on our final product. As it is TCA's policy to conduct business in an ethical manner, the same is expected from our suppliers.

This Supplier Quality Manual has been prepared to provide general instructions that are to be followed by our key suppliers in order to become and remain on our approved supplier list. TCA's objective is to consider our suppliers as an extension of our manufacturing operations. Underlying this relationship is a mutual commitment to assure that our expectations are completely defined and agreed to prior to a partnership.

Acceptance of any and all purchase orders constitutes acceptance and commitment on behalf of the recipient to comply with this manual's content. This manual establishes minimum requirements. It is a supplement and does not replace or alter other terms and conditions of purchasing documents or specifications.

(signed copy on file)

Geoff Farmer
ISO Management Representative

SECTION 1 – CERTIFICATION TO ISO 9001:2015 and Compliance to AS9100

- 1.1 Suppliers shall have a quality management system which meets the intent of the latest version of ISO 9001:2015, American National Standard, Quality Management System Requirements or the latest version of AS9100.

NOTE: Third party registration is not required.

- 1.2 Copies of ISO 9001:2015 may be obtained from:

Web address: <http://www.iso.org>

- 1.3 Copies of AS9100 may be obtained from:

Society of Automotive Engineers

<http://www.sae.org/standards/content/as9100d>

- 1.4 The supplier's quality management system shall be organized to support customer requests and product quality through all phases of manufacture. The quality system shall include, at a minimum, the following:
- a. Inspections (Receiving, In-process and Final)
 - b. Records of processes, inspections and correspondence with TCA.
 - c. Calibration system for measuring and test equipment used to process product.
 - d. Training systems to ensure that a clear understanding of job performance is in place to consistently and accurately manufacture product.
 - e. Provisions for non-conforming product and a corrective action system in place.
 - f. Sub-supplier control and verification program shall include applicable flow-down requirements.

SECTION 2 – SUPPLIER SELECTION & MONITORING

- 2.1 Purchasing, Marketing, Manufacturing, Engineering, Technical, Sales and Quality Assurance may initiate the supplier selection process by collecting the appropriate business information about the supplier and then providing them with TCA's Supplier Quality Survey.
- 2.2 It is TCA's intent to do business with suppliers who are able to provide material consistently to specifications, at a competitive price and in accordance with defined delivery schedules. TCA expects suppliers to provide products in packaging that is sufficient for safe handling and access to product.
- 2.3 The supplier shall complete this survey and return to Quality Assurance. If the supplier is registered and in compliance to a known agency standard such as ISO9001-2008 and/or AS9100, then a copy of the registration should accompany the survey. Additionally, an on-site evaluation of the supplier's facility may be conducted as determined by the ISO Management Representative.

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- 2.4 Key suppliers shall be rated as Class I or II. Class I suppliers are suppliers whose product or service directly affect TCA product quality and are purchased to TCA's unique RMS (Raw Material Specification) or MPS (Material Product Specification). Class II suppliers are suppliers whose product affects TCA's product quality and is purchased to standard specification.
- 2.5 RMS's will be developed for all Class I suppliers and will be referenced on TCA's purchase orders along with a reference to this manual to indicate compliance.
- 2.6 Toll Producers shall be classified as Class I suppliers and will be required to manufacture to TCA Material Product Specification.
- 2.7 When this supplier process is complete the supplier is added to TCA's approved suppliers' list.
- 2.8 Suppliers will be monitored for Customer Service, Condition of Shipment, On-Time Delivery, Labeling, Quantity, Conformance to Specification, and Certificate of Analysis. Suppliers will be assigned a performance rating based on each shipment. This evaluation score will be issued annually to TCA's Class I suppliers.
- 2.9 Annual evaluations shall be conducted to determine if a supplier is qualified to stay on the Approved Vendor List. In addition, periodic testing will be conducted to verify suppliers' COA's and their reported properties.

SECTION 3 – CERTIFICATE OF CONFORMANCE

- 3.1 Material supplied per TCA purchase orders must be accompanied by a Certificate of Analysis/Conformance. Material cannot be received without the Certificate of Analysis/Conformance as it will be reviewed during receiving inspection. The Certification must state the material supplied conforms to all applicable specifications and purchase order requirements. The Supplier's production process must be verified. The Certification must be included with the required shipping documents (packing lists, etc.).
- 3.2 Minimum requirements for the Certificate are:
 - a. Supplier name and address
 - b. A description of the material including ID number
 - c. Analysis data
 - d. Lot number
 - e. Date of certification
 - f. Name and title of an authorized member of the supplier's Quality/Inspection Staff
 - g. Any other requirements specified on the TCA purchase order.

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SECTION 4 – RIGHT OF ACCESS

- 4.1 TCA may request an audit of a supplier's facility for the following reasons:
- a. Supplier is being considered for new or additional business
 - b. Supplier scored low on supplier evaluation
 - c. Supplier failed to correct quality problems
 - d. Supplier change in Material, Product or Process
 - e. Verification of Supplier's Quality systems
 - f. Statutory and regulatory authorities to applicable areas of the facility and documentation

SECTION 5 – MATERIAL, PROCESS and/or PRODUCT CHANGES

- 5.1 No changes to the product or suppliers' process shall be incorporated without first notifying TCA of the change. In some cases, analysis may be required to show the equivalency of the changed product. Process changes shall be controlled and documented within the supplier's quality management system.

SECTION 6 – QUALITY RECORD RETENTION

- 6.1 Supplier evaluation records are to be maintained for a minimum of three years. Supplier test reports are to be maintained for a minimum of twenty-five years.
- 6.2 Quality records may be in various types of media including hard copy or electronic data. Records must be retrievable upon request and in the English language.

SECTION 7 – PACKAGING AND LABELING

- 7.1 Supplied product shall be appropriately packaged to protect from damage. Packaging shall meet all applicable shipping laws, codes and regulations.
- 7.2 Packing slips shall be attached to the package exterior in shipping envelopes.
- 7.3 The supplier shall ensure that all packaged products are clean and free from dirt, debris, foreign objects and damage. Any returnable packaging or dunnage that is not clean and free from dirt, debris, foreign material or damage may be subject to rejection.
- 7.4 Each shipment shall be marked with the quantity/weight lot number and any other specified requirements as per the Raw Material Specification.

SECTION 8 – CONTROL OF NONCONFORMING PRODUCTS

- 8.1 Suppliers to TCA are responsible for providing defect-free material. Known defective material may not be supplied to TCA without prior approval by TCA. Defective material may be identified at any point in the process including incoming inspection, use, validation, or at end customer through warranty claims.

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- 8.2 Counterfeit products prevention – Suppliers shall implement the systems and controls necessary to prevent counterfeit and suspect counterfeit materials from being used and included in the products supplied to TCA.
- 8.3 Suppliers shall be aware of their contribution to product or service conformity and their contribution to product safety.

SECTION 9 – CORRECTIVE ACTION SYSTEM

- 9.1 When quality issues occur, the supplier is required to determine root cause and corrective action to resolve the issue and to ensure no recurrence. A Supplier Corrective Action Request (SCAR) will be issued to suppliers when a non-conforming product or inconsistent on-time delivery is encountered at TCA facilities.
- 9.2 Supplier must take immediate action upon receipt of the SCAR including acknowledgement and implementation of containment action.
- 9.3 The supplier shall complete the SCAR and return to TCA QA or Purchasing Departments by the due date. If a response cannot be generated in this timescale, the Supplier shall notify the relevant TCA personnel.
- 9.4 The supplier may use an internal corrective action form provided it is considered generally equivalent.
- 9.5 TCA reserves the right to recover justified expenses from suppliers for performance failures related to quality and delivery issues.

SECTION 10 – CONTROL OF INSPECTION, MEASURING & TEST EQUIPMENT

- 10.1 Suppliers shall establish and maintain documented procedures for inspection and testing activities to ensure that the specified requirements for the product are met.
- 10.2 Suppliers must maintain calibration records for inspection and test equipment used to make pass/fail decisions on products manufactured for TCA.
- 10.3 Calibrations must be current, and test or inspection equipment tagged or labeled showing current calibration status.