

Thermal Spray Technologies

Supplier Expectation Manual

Thermal Spray Technologies is looking forward to building a strong and profitable working relationship with our suppliers based on quality, on-time delivery, and superior service. Please feel free to visit our facility and meet key personnel.

Business/Quality System

Thermal Spray Technologies has achieved ISO 9001:2000 registration. The road to ISO certification required that certain good business practices be put in place that may not have been required in the past. As a company, we have decided that we do not require that our Suppliers be ISO certified, however we do hold a level of expectation that will be used to evaluate your status as a supplier. A Supplier Survey must be periodically submitted regarding your internal procedures. If you are already certified to ISO 9001:2000, please send or fax a copy of the certification along with the completed "Supplier Information" section of the survey. Failure to do so may result in a Corrective Action Report (CAR) being issued.

Supplier Rating System

The major determining factors used for Supplier Rating will include ISO9001:2000 compliance, or similar quality controls, quality of product, and timely delivery of product. Suppliers will be reviewed Yearly, at a minimum.

Delivery Criteria: 5 Days Early/2 Days Late

Quality Criteria: % of Conforming Product, and including consideration for compliant documentation.

Goal: *To begin, our Supplier Goals for both Quality and Delivery will be 80%. With cooperative efforts and continuous improvement, Supplier Goals may be adjusted periodically.*

Suppliers may qualify for the Dock-to-Stock program if specific products are supplied 10 consecutive times without rejection. Non-conformance of a Dock-to-Stock item would suspend it from the program until an additional 3 consecutive approved shipments. Consideration for this program is based solely on Thermal Spray Technologies' discretion. Acceptance into this program may eliminate the need for shipping SPC data as directed by TST Purchasing/Quality.

Quotations

Submit quotations to the requisitioner or the Purchasing Department. Information required on quotations includes:

Part Number

Drawing Number

Revision level

Quantity (also price break levels)

Material and Labor costs breakdown to justify applicable Surcharges

Tooling or Inspection fixture costs (if applicable)

Setup fees (if applicable)

Qualification charges

Submission Packet

A PPAP (Production Part Approval Process) submission checklist will be provided with specific purchase orders, such as initial part orders and those with engineering specification changes. It shall be the Suppliers responsibility to contact Thermal Spray for re-submission requirements in the event of a material/vendor change, an engineering specification change, a process/equipment change, or a location change. An accepted PPAP submission is required prior to shipment of product.

Deviations

Product specification Deviation requests must be submitted to the Purchasing Department in writing, and be for a pre-determined amount of time, quantity or lot of product. Thermal Spray Technologies can provide a form for use if necessary. If a Deviation is approved, a copy of the Deviation must accompany each shipment as well as the Deviation number appearing on the packing slip and on every container. A Supplier Corrective Action Report (SCAR) may be requested by Thermal Spray Technologies.

Purchase Orders

Most Material orders are transmitted via Fax and will be accompanied by Thermal Spray's standard Terms and Conditions as well as any specific documents such as drawings, work instructions, or MSV (Material Specifications for Vendors). Service orders typically accompany the product and should also have specific documents included. Purchase orders may contain specific requirements such as MSDS, certifications, process or equipment requirements, professional credentials, packaging, etc. If critical characteristics are noted, Suppliers must send SPC charts/process data with shipments, and these charts must be retained at your facility. Requirements on the purchase order should supercede all other documents.

Acknowledgement of all purchase orders is required within 24 hours of receipt. Any surcharges added to an order must be acknowledged and may not be added at a later date. Various methods of acknowledgement are acceptable including a faxed signed copy of the order or emailed acknowledgement. Please call the Purchasing Department to discuss alternate options.

General Quality Standards

Overall Appearance should be free of dents/dings, dimples. There should be no machining marks, rust preventatives, no permanent ink markings on coating surfaces. Parts should be free of burrs.

Labeling Requirements

Products shipped against order referencing MSV's should be labeled in compliance with the specific MSV listed on the order.

All other products require labels with a minimum of the following information:

- Part Number
- Revision Level
- Purchase Order number
- Quantity
- Lot#
- Number of Containers in shipment (ex: 1 of 2, 2 of 2)

**Please note: When shipping multiple pallets of material, part numbers and lot numbers should not be combined on a pallet without prior approval from the Purchasing Department.

Packaging Requirements

Thermal Spray purchases a diverse assortment of products and services, therefore a best attempt will be made to provide packaging guidelines for most type of products. Ultimately, in all cases, products should be packaged in a manner, which preserves the integrity of the product during its entire journey.

- Powder Material** Individual bottles/buckets weighing no more than 50 lbs. Material totaling over 100 lbs. to be palletized and sent LTL.
- Wire Material** *Individual spools weighing between 30 – 60#'s should be boxed. Wire on spools weighing between 400 – 500#'s should be palletized and shipped LTL.*
- Stamped Parts** For shipments over 5,000 - Parts in individual boxes in a quantity that reduces all possible void area and does not exceed 40 lbs. per box. Palletize product totaling over 100 lbs. and send LTL. Shipments under 5,000 may be layered within one pallet bin and shipped LTL.
- Machined Parts** Parts on end in tight layers within individual boxes not to exceed 30 lbs. per box. Dividers preventing parts from touching within the layers is required. Palletize product totaling over 100 lbs. and send LTL.
- Cast Parts** These products are solely dependent on their configuration and approved packaging should be agreed upon before production begins. Typically, parts stand on end divided from touching one another. Palletize product totaling over 100 lbs. and send LTL.
- Service Products** In all cases, products are to be packaged in the same manner they arrived, keeping in mind preservation of the product and coating. Void fill, if required, should be reusable or of an earth friendly material. No foam peanuts will be permitted.

All material sent to Thermal Spray Technologies must be clean and oil free. Our process is such that oils will contaminate our systems and create non-conformances.

Routing Preferences

Individual box shipments totaling less than 100 lbs. should be sent via. UPS Ground unless otherwise specified on the purchase order. TST's UPS account number is E53-793 and products may be sent collect or prepay and add. When shipping by UPS, insurance of product is required. Please contact the Purchasing Department for valuation guidelines.

Shipments utilizing LTL carriers should be sent Collect using the following guidelines:

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|-------------------------|-----------------------------|--------------------------------------|
| From Southern Wisconsin | Pulvermacher Cartage | (1-800-232-0637) |
| From Northern Illinois | Fort Transport | (1-800-242-0128) |
| From Bal. of USA | FedEx Freight
or Con-Way | (1-800-814-1986)
(1-800-362-3229) |

IN ALL CASES – Shipments exceeding 5,000 lbs. will require a spot quote from the appropriate carrier to ensure the best possible rates. It is the responsibility of the Supplier to obtain a spot quote or contact TST's Purchasing Department for assistance. Freight exceeding 5,000 lbs. sent without a spot quote will result in a bill back of excess fees to the Supplier.

Rejections at Thermal Spray

All suspected product will be quarantined at TST and the Supplier will be contacted to either request product return, authorization to sort and charge back sorting fees at \$65.00 per person per hour, and/or request for supplier representatives to sort product at Thermal Spray Technologies. Product returned to the Supplier will be at their expense and will result in a debit for the value of the product. Value of return product is based upon the level of completion when the non-conformance is discovered. Rejections will affect the Supplier's rating and quoting on future jobs.

Acceptable product, resulting from supplier sorting or reworking, must be identified as such. The Supplier is required to attach a colored label with the TST Non-Conforming number on all re-inspected product containers. Also, all packing slips and other relative documentation must indicate that this product was re-inspected and certified for use.

A SCAR may be assigned to determine root cause, interim actions, and long-term prevention of issue. There will typically be a period of 10 business days to return the SCAR. If a longer length of time is required, contact the Purchasing Department for an extension prior to the due date.

Forms

If your company does not have its own forms, Thermal Spray Technologies can provide a template for use. It is not necessary to create forms if Thermal Spray Technologies is the only customer requiring them. Any updates to these internally controlled documents will be made without supplier notification.

If you have any questions, please feel free to contact Debra Thomas, Purchasing, or Andrea Loppnow, Quality Manager, at (608) 825-2772.