

# HI TECH HONEYCOMB SYSTEM PROCEDURE

TITLE:

## Purchasing Quality Control Codes “Q Notes”

COMPANY CONFIDENTIAL

Title	Purchasing Quality Control Codes “Q Notes”
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This Document Includes Content Related to:

- ISO 9001 (General Quality Management System Standard)
- AS9100 (Aerospace Quality Management System Standard)
- Export Control / ITAR / EAR
- AS13100 (Aerospace Quality Management System Requirements)

## ADDENDUM 1

### PURCHASING QUALITY CONTROL CODES “Q” NOTES

**Quality Requirements \*35, \*36, \*37, \*38, \*40, \*43 & \*45 applies to all purchase orders.**

Q-NOTE	DESCRIPTION
<b><i>Certification/Approvals</i></b>	
1	Inspection System has been approved by Hi Tech Honeycomb, per Quality Survey Report and/or Surveillances.
>2	Inspection System must comply with ISO 9001:2015 and/or AS9100 / AS13100 as applicable
3	Hi Tech Honeycomb must approve the Manufacturing Plan prior to production. No changes in testing sequence or methods are permitted without written approval from Hi Tech Honeycomb.
4	Forklift Class I-VI training provider shall hold current certification from equipment OEM per OSHA STD 1910.178.
5	Hazardous Waste Suppliers shall hold current certification from the Department of Transportation.
<b><i>Raw Material Test Reports / Testing</i></b>	
6	Test Laboratories shall hold current certification from NADCAP for Material Testing, plus OEM Approval stated in applicable “Q” note. Maintain procedure to ensure that personnel involved in material testing is competent and subject to periodic evaluation.
7	Must certify that the furnished material supplied by Hi Tech Honeycomb was used and the certification must list applicable supplier heat/lot or job number and a Certificate of Conformance shall be submitted with each shipment of items covered by this order. The “C of C” shall state that all material, processes, and dimensions meet the applicable drawings, specifications, or operation sheets cited in the purchase order. An authorized responsible representative must sign the “C of C”.
8	The supplier must hold written approval from Rolls Royce per SABRe RR9000 (formerly CQC 103) as listed in MLC 101, Approved Metallic Manufacturers. All material certifications must state “SABRe RR9000 formerly CQC 103 Approved Supplier” and material type. Rolls-Royce End User.
9	Material controlled by a PWA approved LCS supplier shall include the following statement on the material cert and including the Mill Cert: <u>“Material controlled to PWA-300 &amp; PWA-LCS per “MCL –F14 &amp; MCL-F17”</u> . All Lab Reports shall include statement “Testing performed per PWA MCL-F23”. Articles are for applicable – UTC Members End Use and must be controlled as ASQR-01, Para 7.4.2
10	Supplier shall Include the following statement on the material cert: EXAMPLE - <u>“Material Controlled per DMD 491-23”</u> or <u>“Material Controlled per DMD 495-23”</u> depended on material type. Hi Tech Honeycomb shall list on P.O. SAFRAN document GRP-0087. All Mills must be listed on the SAFRAN document CAFM/L-10
11	The material specifications listed on this purchase order must be noted on all certifications.
12	Verify the count and weight of all coils and confirm they meet the requirements of the Purchase Order. Overage of 5% - 10% still may be acceptable
13	The Material Supplier will provide coils with colored dot stickers based on the same color codes described in O.M. 2.8.4 Exhibit 1, or material type label. Minimum information on ID label: <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">                     1) Material Type                      2). Heat No.                      3). Foil Thickness (Min. to Max.)                      4). Foil Width (Min. to Max.)                 </div> <div style="width: 45%;">                     5). Work No.                      6). Material Specs (all from P.O.)                      7). Actual Gauge of Coil (4 Digits)                      8). Actual Height of Coil (3 Digits)                 </div> </div>
>14	Material Certificate must have the note; “EN 10 204 2004 3.1. Certificate”.
15	All raw materials must be free of oil, burrs allowed up to 10% of foil thickness and width dimensions within the manufacturer’s applicable tolerance is acceptable.

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16	The Material Supplier will provide coil with material no less than 3 lbs. Or 3,000ft., otherwise, is to contact Hi Tech Honeycomb prior to shipping coil(s).
17	Raw Material Certificate limited to one Heat Number.
18	Must comply with G.E. Specification S-1000 (Quality Requirements). All S400 Approved Lab Reports shall include the statement “ <b>Material Testing by G.E. S-400 Approved Lab</b> ”.
19	The Raw Material Certificate must certify that the <i>Material was Melted and manufactured in the United States. The material Melt Source (Name / Address) must be specified on the certification.</i>
20	Raw Material Mill Cert is required for each heat lot number.
21	<p>Unless otherwise specified the following minimum information shall be included on the test report of Trace Chemical Analysis (foil or braze tape) and Mechanical Testing (foil material) of specimen per the applicable OEM Specification stated in the P.O.</p> <ul style="list-style-type: none"> <li>a) Title: Test Report</li> <li>b) Address of lab performing the work.</li> <li>c) Test Report Number, total # of pages</li> <li>d) Name of Customer</li> <li>e) Purchase or Client Order Number.</li> <li>f) Description and unambiguous identification of the item tested.</li> <li>g) Material type.</li> <li>h) Material specification.</li> <li>i) In compliance with OEM specifications.</li> <li>j) Quantitative Analysis Report per applicable methods.</li> <li>k) Other Elements Report.</li> <li>l) Disposition of Chemical Analysis.</li> <li>m) Mechanical Test Report (as applicable)</li> <li>n) Disposition of Mechanical Test (as applicable)</li> <li>o) The name, title and signature of person stating tests were performed in accordance with client and operations manual requirements.</li> </ul>
22	Test sample foil material Stainless Steel, Heat# _____ for chemical and mechanical analysis specification: AMS5503
23	Hi Tech Honeycomb will forward material samples to an accredited lab for testing to customer requirements of PWA MCL-F23 and GE S-400. The supplier accepts responsibility of all costs.
24	Test the sample foil material Haynes 214, Heat# _____ for chemical and mechanical analysis specifications: S400, B50TF219 MTS1379A, RR9000 Sabre, MSRR7238, GRP-0087 and DMD 495-23.
25	Test sample foil material Hastelloy X, Heat# _____ for chemical and mechanical analysis specifications: S400, AMS5536, PWA MCLM F-23, GRP-0087, DMD 491-23 and MTU MTN94111 WL24665T1 and Rolls Royce SABRe 9000 – MSRR 7158.
<b>Braze Certificates / Test Samples</b>	
26	Braze Certs must be printed separately when more than one Spec is listed in the P.O.
27	Test sample Braze Tape Material AMS4777, AMS4778, AMS4779 and AMS4782 for chemical analysis specifications: S400, RR9000 Sabre, MTU MTN94111, GRP-0087, PWA MCL Section F-23 & PWA MCL Section F-62 para. 4.3.6.
<b>Calibration Certificate</b>	
28	Calibration Laboratories shall provide Certificate of Calibration traceable to the N.I.S.T. or National Accepted Measurement Systems, in accordance to ISO/IEC 17025:2017 and/or ANSI/NCSL Z540-1-1994, or latest release. The Calibration house shall have the correct Accreditation for the tools to be calibrated per ISO/IEC 17025:2017

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29	<p>Unless otherwise specified the following minimum information shall be included on the Certificate of Calibration.</p> <ul style="list-style-type: none"> <li>a) Title: Certificate of Conformance.</li> <li>b) Address of lab performing the work.</li> <li>c) Certificate Number / Test Report Number, total # of pages.</li> <li>d) Name of Customer.</li> <li>e) Purchase Order Number.</li> <li>f) Description and unambiguous identification of the item calibrated.</li> <li>g) Condition of the calibration item as received.</li> <li>h) Date of calibration.</li> <li>i) Identification or description of the calibration method used.</li> <li>j) Comments or notes.</li> <li>k) The name, title and signature of the person performing the calibration, and date of issue.</li> <li>l) Name and signature (stamp) of QA/QC approval.</li> <li>m) A statement of estimated uncertainty of the calibration report.</li> <li>n) A statement that the report shall not be reproduced except in full, without this written approval of laboratory issuing report.</li> <li>o) Statement of traceability.</li> <li>p) Statement that the result relates only to the item calibrated.</li> <li>q) Environmental condition in the lab.</li> <li>r) Calibration interval.</li> </ul>
<b>EDM Metallographic Testing</b>	
30	<p>Unless otherwise specified the following minimum information shall be included on the test report of metallographic examination of section (coupon) EDM Surface Recast-Intergranular attack per the applicable OEM specifications stated in the P.O.</p> <ul style="list-style-type: none"> <li>a) Title: Test Report</li> <li>b) Address of lab performing the work.</li> <li>c) Test Report Number, total # of pages.</li> <li>d) Name of Customer.</li> <li>e) Purchase or Client Order Number</li> <li>f) Description and unambiguous identification of the item tested.</li> <li>g) Material tested.</li> <li>h) Test to Specification; in compliance with; purpose.</li> <li>i) Metallographic Examination Report of EDM Surface per applicable OEM specification and signatures.</li> <li>j) The name and title of person stating test were performed in accordance with client and operations manual requirements.</li> </ul>
31	PWA Metallographic Testing of EDM Intergranular Attack per PWA 97-7, PWA MCL E-54, CL IV, IAW PWA MCL Manual Section F-23, paragraph 4.5.1 & 4.5.2.
32	Rolls-Royce Metallographic Testing of EDM Intergranular Attack per RPS 418, CME5033/5F1 Category 4.
33	Snecma Metallographic Testing of EDM Intergranular Attack per DMP 66-002.
34	GE Metallographic Testing of EDM Intergranular Attack per P29TF6.
<b>Control of Sub-Suppliers</b>	
*35	The supplier will flow down to sub-tier suppliers all applicable requirements in the supplier’s own purchasing documents, including key characteristics where required.
*36	<p>Notification of change: Suppliers shall notify Hi Tech Honeycomb when there is a plan to change per AS9100 Para. 6.3. The organization shall consider:</p> <ul style="list-style-type: none"> <li>a. The purpose of the changes and their potential consequences;</li> <li>b. The integrity of the quality management system;</li> <li>c. The availability of resource;</li> </ul>

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	d. The allocation or reallocation of responsibilities and authorities.
<b>*37</b>	Suppliers shall ensure that persons are aware of: - Their contribution to product or service conformity (Quality) - Their contribution to product safety - The importance of ethical behavior
<b><i>Right of Access</i></b>	
<b>*38</b>	By acceptance of this P.O. the supplier shall make provisions for right of entry by a Hi Tech Honeycomb Representative, by our customer’s and other statutory and/or regulatory agencies to verify quality of contracted work, quality records, material and excluding proprietary information.
<b><i>Safety Data Sheets</i></b>	
<b>39</b>	Material Safety Data Sheet required and any updates sent.
<b><i>Counterfeit Parts/Material</i></b>	
<b>*40</b>	Suppliers need to be aware of the prevention and use of Counterfeit Parts/Material. Material Test Reports shall confirm material composition as per Purchase Order requirements.
<b><i>Inspections</i></b>	
<b>41</b>	A 1st article requirement applies to all revisions affecting 100% hardware configuration.
<b>42</b>	Documented inspection data is required for 100% of the items manufactured under this order.
<b>*43</b>	The supplier must immediately notify HTH of any non-conformance affecting product previously delivered or currently in transit to HTH. Non-conformance product in process or in transit must be identified as such, and isolated from good parts.
<b><i>Documented Information</i></b>	
<b>44</b>	Suppliers shall retain records for a minimum twenty-five (25) years
<b>*45</b>	If the revision level of specifications relevant to this order is not specified, the latest revision shall be used.
<b><i>Conflict Minerals / Specialty Metals</i></b>	
<b>46</b>	Conflict Minerals – Acceptance of this order certifies that your company is in full compliance with Section 1502 of the Wall Street Reform and Consumer Protection Act, known as the Dodd-Frank Act; and that materials used in the fulfillment of this Order Are “DRC Conflict Free”. Conflict minerals are defined as” tantalum, tin, tungsten and gold”. This may require you to contact your own suppliers to determine the presence, country of origin and the name of the smelter of the relevant minerals contained in your products
<b>47</b>	<i>Preference for Domestic Specialty Metals</i> - - You must certify that any specialty metals incorporated in deliverables be melted in the United States, in a qualifying country, or incorporated in an article manufactured in a qualifying country. “Qualifying Country” means any country listed in subsection 225.872-1 of the Defense Federal Acquisition Regulation supplement. “SPECIALTY METALS” MEANS: <ul style="list-style-type: none"> <li>• Steel – (a) With a maximum alloy content exceeding one or more of the following limits: 1.65% manganese; 0.60% silicon; or 0.60% copper;</li> <li style="text-align: center;">or</li> <li>(b) Containing more than 0.25% of any of the following elements: aluminum, chromium, cobalt, columbium, molybdenum, nickel, titanium, tungsten or vanadium;</li> <li>(c) Nickel, iron-nickel, and cobalt base alloys containing a total of other alloying metals (except iron) in</li> </ul>

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	excess of 10%; Titanium and titanium alloys; or Zirconium and zirconium base alloys.
	<b><i>Packaging/Containers</i></b>
<b>48</b>	Corrugated fiberboard containers shall be manufactured in accordance with (ASTM) D5118, and shall be stamped with the box manufacturer's certificate.

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\*Reference Procedure S.P. 4.6-1 Purchasing Rev BB for all previous Addendum 1 revisions\*

REVISION RECORD		
REVISION	DATE	ORIGINAL ISSUE
BC	4/10/24	Revised “Q” Notes 2 and 14
<a href="#">&gt; = Revision</a>		