

Product Quality Assurance Manual

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# **PRODUCT QUALITY ASSURANCE**

Conditions for the delivery and acceptance of products

# SADEV

# Document 99-00

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#### 1. Foreword

The rapidly changing economic climate and the need to constantly improve the quality of our customer service means that we have to continually adapt our working methods.

With this in mind, and in order to respond to requests made by customers, the SadevGroup is committed to the creation and implementation of a Product Quality Assurance (PQA) policy, to be applied to all its supplies.

This policy is based on the principle of validating the conformity of products at the manufacturing stage, and no longer by inspections carried out by the SadevGroup. This also requires the full commitment of the supplier in managing nonconformities detected in products delivered to the SadevGroup.

This approach shall be based upon the current PQA specifications, which define the delivery conditions that must be respected in order to guarantee total confidence in the conformity of products supplied to the SadevGroup, as well as the steps to be followed in dealing with any nonconformities that may arise.

The entire SadevGroup team is always available to assist its suppliers in implementing this improvement approach.

#### 2. Scope of application

These specifications apply to the delivery of all products ordered by the SadevGroup: samples, first deliveries or partial deliveries.

## 3. Principle

Any delivery made to the SadevGroup must be accompanied by documents confirming the conformity of the batch(es) delivered with the order requirements.

#### 3.1. General case

(No specific instructions on the purchase order)

Except in specific cases mentioned in §3.2, each delivery must be accompanied by the following documents:

- a dimensional check report;
- a materials certificate:
- where necessary, certificates relating to additional treatments performed on the parts.

These documents must be systematically supplied, even when not explicitly requested on the SadevGroup order.



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They must also be supplied in the case of partial deliveries of items belonging to the same manufacturing batch.

#### 3.2. Special cases stipulated on the purchase order

Depending on the specific requirements of its customers or of a given product, the SadevGroup may see fit to request additional documents such as initial sample (IS) files, production reporting, (capabilities, inspection sheets, etc.) and PPAP-type documentation.

The request for such documents shall be formulated according to the capabilities of each supplier, and shall be the subject of a pre-order agreement in which the request shall be clearly mentioned.

Working with suppliers that know how to produce these documents is, as far as the SadevGroup is concerned, a definite asset for specific market penetration. The ability to produce these documents is a defining criterion when choosing suppliers with whom to consult regarding products associated to particular markets.

#### 4. Basic documents

#### 4.1. Inspection report

This document must accurately reflect inspections carried out during the manufacturing process or as part of representative sampling performed during a final inspection.

In the absence of specific instructions with regard to the plan or order, the supplier shall apply its usual sampling rate. Failing this, the SadevGroup sampling inspection plan may be sent to the supplier as a reference document.

The report must include all batch identifiers enabling the link to be made between the delivery note and the SadevGroup purchase order.

Each dimension measured must be indicated with its value, margin of error (tolerance) and the means of measurement used. The minimum and maximum values measured shall also be indicated. The SadevGroup D 12 00 form, enclosed in the appendix, may be provided in Excel format.

Comments such as "Good" or "OK" may only be used for attributes that are inspected visually or using test gauges.

Parts manufactured for the SadevGroup generally have simple geometric forms and a limited number of dimensions. The report must therefore include all dimensions on the plan. For more complex parts, a suitable inspection plan may be submitted to the SadevGroup.

When the supplier does not have the necessary equipment to carry out precise measurements of certain dimensions, in particular certain geometric dimensions, the dimensions concerned should be mentioned in the report without any measured value. The report shall be completed by the SadevGroup.



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#### 4.2. Materials certificate

For all metals, the certificate must, as a minimum, include the materials analysis of the batch of metal used, in accordance with standard EN 10204 2.2. When so specified on the plan or purchase order, it is essential that certificate 3.1 EN 10204 be supplied.

For plastic materials, in the absence of specific indications on the plan or order, the distributor's conformity certificate is acceptable. When specific documents are requested on the plan or the order (conformity with standards, certificate of origin for resins, imposed brand), it is essential that these requirements be passed on to the supplier of the material when the order is made, as such documents are very difficult to obtain after delivery.

The part number and the manufacturing batch number – or, failing this, the work order number – must be included on the certificate.

Delivery notes which include only the grade of the material shall not be accepted.

In order to ensure our traceability records are complete, the certificate must be issued in the supplier's name.

#### 4.3. Treatment certificates

Treatment certificates must include, as a minimum, a hardness measurement for heat treatments or a thickness measurement for surface treatments, with the name of the treatment performed clearly stated.

The part number and batch number must be included on the certificate.

Delivery notes which only include the type of treatment carried out shall not be accepted for treatments that can be quantified by a measurement report (thickness or hardness). Such delivery notes are tolerated for simple treatments that cannot easily be measured (e.g. burnishing, phosphate treatment, passivation).

The certificate must be issued in the name of the supplier.



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#### 5. Specific documents

These are documents that may be required in accordance with section 3.2:

- initial sample presentation documents;
- capability studies;
- PPAP-type documentation.

#### 5.1. IS files

These documents are usually required for the initial supply of a new part or new index. They must include:

- a presentation sheet;
- five measured samples with their inspection reports;
- materials and treatment certificates;
- any capability studies.

The SadevGroup has model documents, such as VDA or PSW (Part Submission Warrant) presentation sheets.

#### 5.2. Capability studies

These studies correspond to specific customer requests and generally concern one or more critical dimensions on the plan.

- Machine capabilities Cm, Cmk;
- Process capabilities Cp, Cpk;
- Statistical process control (SPC) sheets.

#### 5.3. PPAP-type documentation

The ability to deal with PPAP documentation is now an essential criterion for referencing in certain sectors, particularly in the motor industry.

The supply of this sort of documentation must be the subject of a prior agreement, ideally when a price quotation is requested and, at the very least, prior to the definitive issue of the purchase order.



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#### 6. Format of documents/Confidentiality

All documents supplied shall be archived by the SadevGroup. They must also be easy to use confidentially for the production of documentation for customers.

The following are unacceptable:

- papers with watermarks containing the name of the company;
- stamps placed partially or totally on the text of documents;
- documents printed back to back;
- paper formats exceeding A4.

The following are acceptable:

- company logos and logos of certification bodies;
- a section containing contact details (address, telephone numbers, etc.).

#### 7. Delivery/Acceptance

Accompanying documents must be enclosed with the delivery in accordance with the SadevGroup D98 00 packaging recommendations.

The absence of documents may cause the delivery to not be accepted until the missing documents are received, as well as the recording of a nonconformity.

Batches shall be accepted on the basis of the documents supplied. The SadevGroup may proceed with random checks or complementary measurements where this is deemed necessary; however, systematic sample inspections shall no longer be performed.

Both the supplier and SADEV are therefore jointly responsible until the parts are used by the end customers.



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#### 8. Nonconformity management

#### 8.1. Triggering a nonconformity

Nonconformities declared by the customer or detected by SADEV shall lead to the creation of a nonconformities file.

Nonconformities are triggered by the detection of the following anomalies by the SadevGroup or its customers (non-exhaustive list):

- · dimensional discrepancy;
- materials anomaly;
- unfinished part;
- finishing faults (burrs, cleanliness);
- failure to respect quantities or deviation from quantities announced;
- failure to respect packaging rules;
- absence of inspection report and/or other documents;
- failure to respect instructions on the purchase order.

The supplier shall be sent a notification of defects in cases where it is responsible for such nonconformities.

#### 8.2. Repair to specifications/Contribution to costs incurred by nonconformities

The costs associated with the return of parts or with sorting or repair operations performed by the SadevGroup or its customers shall be passed on, in part or full, to the supplier concerned, taking account of the following points:

- Whenever possible, the non-compliant goods shall be returned to the supplier, who shall undertake to replace or repair said goods in accordance with the necessary specifications.
- In certain special cases, for deadline reasons or obvious economic reasons, it is
  possible that the SadevGroup or the customer concerned may wish to carry out
  sorting or repair operations themselves. This must be agreed beforehand with the
  supplier concerned.
- SadevGroup shall use its logistical resources to ensure the return and resupply of the parts at the lowest possible cost.



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#### 8.3. Corrective measures

In order to ensure the SadevGroup has all information necessary for its nonconformity files, and in order to respond rapidly to requests for corrective measures from its customers, the supplier must respond to any notification of defects it receives.

This response may be made directly on the notification of defects (in the response section), or on an 8D-type form.

The response must contain the following elements at the very least:

- incident root cause analysis;
- state of progress and results of checks on stocks and work in progress;
- description of corrective measures.



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# 9. PPAP specifications example

BADEV Docum	ent 12-01 Date : 07-juil-09		
DECOLLETAGE Rapport de	contrôle : 39224 Auteur : Sadev	and the second	
Prüfbericht	/ Quality report Page 1 / 1	Document Dxx	DATE: 06/07/09
Client/Customer 010028	Designation M12-8 PIN	SADEV Part Submission Warrant	Automa C. Marria
Réception/Receipt 907034581	Article/Item 10000043068/00	rart Submission warrant	Auteur: G. Musy
BCA / PO 906023995	Quantité/Quantity 4 000		
Lot N° 9042106	AR/SO	Part Name M12-8 PIN Part Number: 10000043	3068
Matière/RM	Controles	Drawing No. 10000043068 Revision Level: 00	Dated:juil. 9, 09
		SUPPLIER INFORMATION CUSTOMER INFO	
Cotes du plan Nennmasse / Drawing measurement	Cotes mesurés (min/max) Gemässene Masse / Mesured sizes	SADEV Group	
		2 allee des Faisans 74600 SEYNOD France	
Cote/Size Moyen/Inst. Date/User	Cote/Size Observation		
19,94 01/07/2009 DPE	19,93-19,95	REASON FOR SUBMISSION	
Ø1,71-1,72 01/07/2009 DPE	1,715-1,719		al Construction or Material faterial Source Change
Ø0,66 01/07/2009 DPE	OK PIN MINI-MAXI	Tooling - Transfer, Replacement Change in Part Pro	
6,5 01/07/2009 DPE	6,49-6,52	Correction of Discrepancy	
0,13 X30* 01/07/2009 DPE 90,79 +0,02/0 01/07/2009 DPE	OK	☐ Production process inactive > than years ☐ Other - please sp.  Requested Submission Level (For Specific Requirements	xify
Ø0,79+0,02/0   O1/07/2009 DPE   8,84±0,07   O1/07/2009 DPE	0,796-0,801 8,86-8,89	Level 1 - Warrant only (and for designated appearance items, an Appearance Appe	oval Report) submitted to customer
Ø1,02±0,02 01/07/2009 DPE	1,022-1,029	Level 2 - Warrant with product samples and limited supporting data submitted to c	ustomer
0,6 01/07/2009 DPE	0,59-0,60	Level 3 – Warrant with product samples and complete supporting data submitted to	customer
1,2 01/07/2009 DPE	1,20-1,21	<ul> <li>Level 4 − Warrant and other requirements as defined by customer</li> <li>Level 5 − Warrant and product samples and complete supporting data reviewed at s</li> </ul>	annier's manufacturing location
60° X2 01/07/2009 DPE	OK PROJECTEUR	SUBMISSION RESULTS	supplier 5 manufactoring receiton
0,08-0,12 X2 01/07/2009 DPE	0,09-0,11		arance criteria 🗵 statistical
25° X2 01/07/2009 DPE	OK PROJECTEUR	functional tests  These results meet all drawing and specification requirements ⊠ yes □ no If "no" Es	process packa planation is Required
Ø1,02 ±0,02 01/07/2009 DPE	OK PIN MINI-MAXI	RoffS (Restriction of Hazardous Substance) Internation	il Material Data System (IMDS)
7 01/07/2009 DPE	7,04-7,06	Compliant Non-Compliant Alre	ady ubmitted by IMDS
0,87 X30° 01/07/2009 DPE	OK	If Non-Compliant please specify:	
R1,3 01/07/2009 DPE	OK C		
		DECLARATION:  I hereby affirm that the samples represented by this warrant are representative of our production Part Approval Process Manual Requirements. I further warrant these samp #8 hours. I have noted any deviation from this declaration below.  EXPLANATION / COMMENT:	arts, have been made to the applical
			<sup>7</sup> ax № (33) 450337033 Email addres s g.musy@sadevgroup
		PPAP Warrant disposition	
Observations générales	Décision	Print Name Date	
Hinweise / General comments	Entscheidung / Decision		
ECH LE 10/07/2009	Lot accepté ☑ Lot refusé □		
	Visa Daniel PEREZ		
Fichier: Reporting/Fiche rapport contrôle	mercredi 9 décembre 2005		



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Adresse de livraison

74603 SEYNOD

SADEV DECOLLETAGE

2 ALLEE DES FAISANS

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SPECIALISTE DU REVETEMENT ET DES FILS DE HAUTE TECHNICITE

SADEV GROUP 2, Affée des Faisans Z.I. de Vovray 74600 SEYNOD

Fax: +33/(0)4 50 33 70 33

+ 33/(0)4 50 33 70 30

THERMO

Batch 9042105

Plating certificate

#### Certificat de conformité (Certificate of compliance)

Notre B.L. (Packing list) Votre Commande (PO) Code Article (Item) Libelié (Ref.)

14003 906023995 10000043068 IND 00

Traitement NICKEL SULFAMATE SEMI BRILLANT 1,27µ MINI+OR 0,76µ MINI+ (treatment)

No OF Interne (Work Order) Quantité (Qty)

15733 4 000PCS

Minimum (Mini)	Moyenne (Average)	Maximum (Maxi)	Contrôle / Méthode / Résultat (Control/Procedure/Results)	
2,29	2,56	2,93	CONTRÔLE EPAISSEUR NICKEL SOUS FLUO X	Conforme
0,83	0,94	0,98	CONTRÔLE EPAISSEUR OR SOUS FLUO X	Conforme
			CONTRÔLE ASPECT VISUEL SANS GRATTON	Conforme
			ADHERENCE TENUE AU PLIAGE CONTRÔLE SOUS BINO X8	Conforme
			CONTRÔLE ASPECT VISUEL SANS DEFORMATION	Conforme
	1		CONTRÔLE PRESENCE DES DOCUMENTS REQUIS	Conforme

Délai d'acceptation de nos traitements : 2 mois, voir conditions générales de ventes. Selon conditions du syndicat National du Revêtement, du traitement des Métaux S.A.T.S. et nos conditions générales de ventes Time limit for the acceptance of our treatments: 2 months according to our general sales conditions. According to the conditions of the national Syndicate for plating and steel treatments SATS and to our general sales conditions-

Contrôleur :

Responsable:

Société anonyme au capital de 5 142 852€ - R.C. Annecy 96 B 18 - SIRET 403 038 037 00012 - NAF 285 A

#### SWISSMETAL

Bulletin de livraison 80090984 Date de livraison 13 03 2008

PN 10000043068

Batch 9042105 Raw material certificate

SADEV GROUP 2, Aflée des Faisans Z.I. de Voyray 74600 SEYNOD Tél.: + 33/(0)4 50 33 70 30 Fax: +33/(0)4 50 33 70 33

No de Client Votre référence

Correspondant

Resp. client

Cornet Christophe 147/2008/MAT du 10.03.2008

Edwige Vernillot

Email: EDWIGE.VERPILLOT@SWISSMETAL.COM Dominique Maure

74218, du 11.03.2008

Commande Pos. Article

Votre No. Oté

1 PC

., . . . . (ast. 62018)

36PB3R0200/HQ 98,900 KG

2-7326-PQCA-1 Alliage: 61A MS62PB CuZn36Pb3 Barres Rond

en Laiton au Pb 2,000 mm (0,0000 mm/-0,0200 mm) L: 3.000,000 mm (+30,00 mm/-0,00 mm)

RM: min. 400 N/mm2 Allongement 100: min. 8 %
Extrémités: Pointé-chanfreiné Certificat: EN 10204 2.1

Brutto 120,000 KG Net: 98,900 KG Marguage:

Numéro Handling Unit 1000222663 No. tarifaire: 7407.21 93

Vous trouverez la déclaration de conformité pour cette position en fin de document.

6-CBA-003 Caisse standard 3200 mm 250 kg

Conditions de livraison Condition d'expédition

Déclaration de conformité de type D selon EN 1655: 1997

(Remplit ágalement les conditions d'une attestation de conformité à la commande selon l'ancienne norme DIN 50049 - 2.1)

Les produits couverts par cette déclaration sont conformes aux prescriptions et aux exigences du client ainsi qu'à la spécification indiquée. Ces produits ont été fabriquée dans le cadre d'un système de qualité certifié. Les résultats d'essai ont été déterminés par un laboratoire évalué. ISO 9001 / 14001 BVC SCESm 003/031 N 204163 du 22.01.2007.Expert autorisé: G. Caccioppoli

SWISSMETAL UMS Usines Métallurgiques Suisses SA, Usine Boillat, CH-2732 Reconvilier Téléphone 032 482 0 482 Telefax 032 482 0 116 TVA 477231

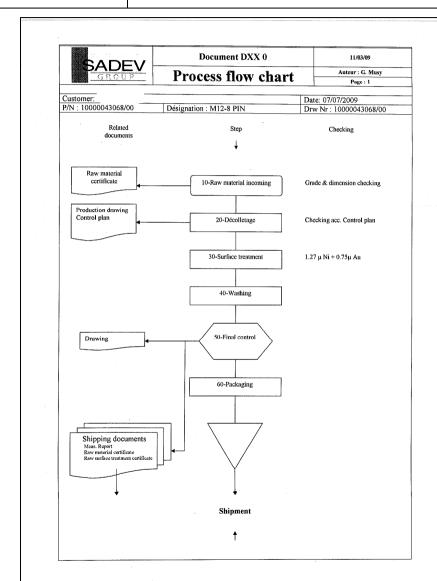


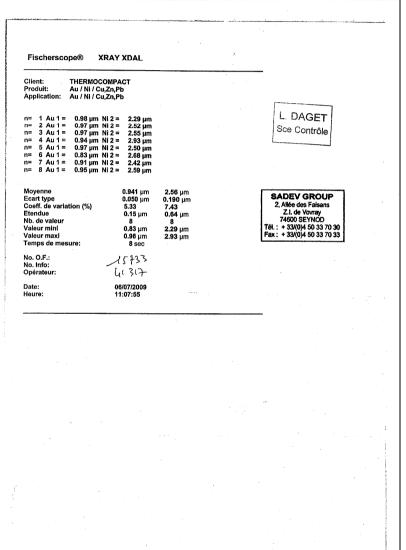
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# Process FMEA

SADEV

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		0 G D C	42	42	40	4	9	
8			3 7 2	7	2 5 4	4	8 5	
60//0/80		9	7	3 7	5	2 5	∞	
8		0	ω.	- m	2	7	-	
Date		Corrective action	Shorter tool sharpening period	Shorter tool sharpening period	Cams oiling system control	Cams oiling system control	Using small plating barrels	
		ပ	86	86	5 4 140	5 4 140	5 160	
		Q	2	2	4	4	5	
		U	7	7	S		8	
Ì		0	7	7	4	4	4	
Part Name : M12 8 pin		Control plan O G D C	Gauges	Visual	Micrometer	Micrometer	Visual	
Part Name		Potential effect	Assy trouble	Tool break Plating trouble	Chip on stop Funct frouble	Assy trouble	Assy trouble	
10000043068		Cause	Tool break	Tool break	Chip on stop	Chip on stop	Plating	
Part Number: 10		Failure	Missing .040 hole	Missing .026 hole	Dia .031 out of tol	Dia .040 out of tol	Folded pins	
Рап		Step	20	20	20	20	30	

O : Probabilité d'occurrence (0 à 10) G : Gravité (1 à 10) D : probabilité de détection

Document DXX 0

Control plan

SADEV

ı				1	1	_	 	 	-	
	Comment			THE	THE PROPERTY OF THE PROPERTY O					
	Control rate	2 pcs / 2 h	2 pcs/2 h	2 pcs/2 h	2 pcs / 2 h	2 pcs/2 h	20 pcs	50		
	Control mean	Micrometer	Micrometer	Pin mini-maxi	Caliper	Micrometer	Visual	Visual		
	Dimension / Criterion	Ø1.72-1.72	Ø0.79 +0.02/0	Ø1.02 ±0.05	7	Ø1.02 ±0.02	Treatment	Packaging		
	Step	20	20	20	20	20	30	9		

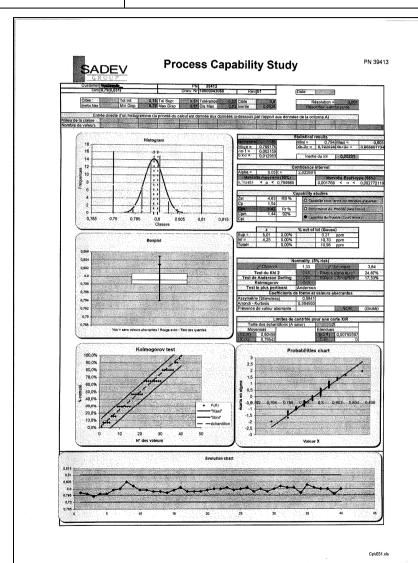


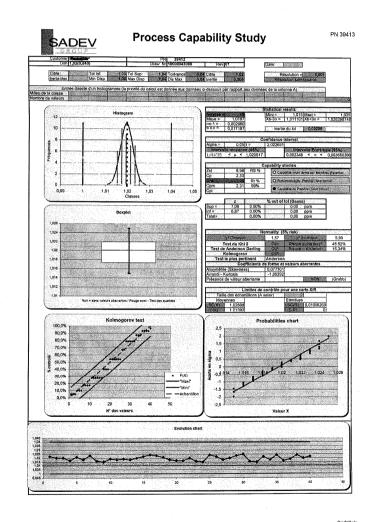
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