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Work Instruction (Inspection)		Document No.: WI-R-EMEA-CERT-INSP-PCS015
EMEA CERTIFICATION SCHEMES - PRODUCT CONTROL SPECIFICATIONS		
Issue Date:	Revision Date: 17 th June 2016	Approved by: Fredrik Wennersten
	Effective Date: 1 th July 2016	

1.0 Purpose

Product Control Specifications (PCS) specify the requirements for routine inspections, tests, Product Verification Tests and sample selection for products certified under an Intertek EU Type 5 certification scheme (including GS, S, BEAB, ASTA, ENEC, BAUART and TICK MARK). They are for use by manufacturers and by factory inspectors.

2.0 Scope

Products: Miniature fuses
Standards: IEC 60127 series
Marks: S, ASTA, BAUART, TICK, ENEC

3.0 Routine inspections and tests

3.1 General

The following requirements apply to most products.

Variations may be permitted by prior, written agreement from the certification body.

The factory should have a quality plan defining all inspections and tests on materials, components and completed products as appropriate.

Any products which fail inspection or testing shall be segregated and not allowed to continue through the process until rectified and re-inspected or retested.

Products shall not be released until the testing equipment has been checked again following a production batch.

Records of inspections and test should be maintained and held for at least two years

Records shall include:

- Type of product
- Date of test
- Place of manufacture
- Quantity tested
- Number of failures and actions taken

Note: these are “safety critical” items. Documentation including bills of material and quality plans must be available for review by Intertek during inspection.

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3.2 Required inspections and tests (for Intertek Certification Marks)

3.2.1 Lot-by-lot inspection in accordance with IEC 60127-5 clause 4.2 (non-destructive tests):

Table I

category	test	Sub-clause of IEC 60127-1	Classification of defects		AQL	
			Major	Minor	Each defect	Total/category
Marking	Fuse-links Colour codes	6.1 6.4	X	-	0.25	-
Mechanical	Terminations*	8.3	X	-	0.25	0.65
	Alignment	8.4	X	-		
	Dimensions	8.1	X	-		
	Cracked insulation (visible)	-	X	-		
Electical continuity	Cold resistance**		X	-	0.25	

*Without being immersed in water
 **Limiting value given by the manufacturer and based upon voltage drop measured in accordance with sub-clause 9.1 of IEC 60127-1 but with a current not greater than 10% of the rated current of the fuse.

3.2.2 Lot-by-lot inspection in accordance with IEC 60127-5 clause 4.3 (destructive tests), Time/current characteristic:

Inspection level S4, AQL 0.65

Table II:

Percentage of samples selected	10	40	30	10	10
Subjected to tests with the following current	1.0 I _n or 1.5 I _n *	2.0 I _n or 2.1 I _n	2.75 I _n	4 I _n	10 I _n

* modified endurance test according to Items b) and c) of sub-clause 9.4 of IEC 60127-1

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3.2.3 Fuse-holders for miniature fuses (IEC 60127-6)

Inspection/test	Test parameters	Sampling plan
Insulation resistance and dielectric strength	IEC 60127-6 clause 11.1	3 samples Each day/batch
Contact resistance	IEC 60127-6 clause 11.2	3 samples Each day/batch

3.3 Required inspections and tests (for ENEC Marked products)

In addition to the inspections and tests detailed in section 3.2, the requirements of document ENEC 303 Annex AN shall be fulfilled.

4.0 Product Verification Tests/Periodic testing (refer to CIG 021 clause 5.8)

Product verification tests are in addition to the production line inspection and routine tests and are performed on samples taken randomly from the production line.

The manufacturer is responsible for conducting or arranging for the following periodic testing to be completed. Records shall be available for review during factory inspection visits.

Certification Mark	Frequency	PVT/periodic testing required
S, ASTA, BAUART and TICK Mark	Annual	PVT is not mandatory but it is recommended to demonstrate ongoing compliance with EU Directives. The following PVT is recommended: <ul style="list-style-type: none"> PVT according to document ENEC 303 Annex AN
ENEC	Annual	PVT according to document ENEC 303 Annex AN

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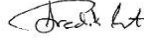
5.0 Surveillance testing by the Certification Body

If required, samples are selected during the factory inspection and the manufacturer should send these to the address provided. If samples are required but not available at the time of the inspection, the manufacturer should send these as soon as they become available. If there is no stock or production, the manufacturer should advise the certification body that samples will not be provided due to no production.

The certification body will arrange for the required testing to be completed. This will be charged to the manufacturer or Licence holder. A report of the testing will be provided.

Certification Mark	Surveillance testing requirements
All	Regular selection of samples is not required. Samples may be required if any deviations to the type tested or non-compliance with the product standard are suspected
ENEC	Product surveillance according to document ENEC 324. Samples for product surveillance are selected by the inspector at the time of factory inspection, to be sent to Intertek Semko AB.

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Document History				
Revision No.	Date	Changes	Name & Title	
			Author	Approving Official
1	11/02/2015	Original issue	R W Hayward	
2	16/06/2016	Corrections in 4.0 PVT tests	Paul Klemets	

End of Document

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