



Sheffield Assay Office Analytical Services QC test

- in support of EC Nickel Directive 2004/96/EC3
(SI 2005 no 2001).

The QC test is a variation on the BSEN12472 (inc. BSEN1811)
Full Reference test.

As with the Full Reference test the article is subjected to the simulated 2 years wear test and immersion in a standard sweat solution for one week.

The variations are as follows: -

- The smallest component has its surface area measured.
- Combined article components are placed into one container and test solution added. Where these have been cut, the cut areas are masked.
- The reaction of the solution with the article may be affected by the production of galvanic cells - which are likely to encourage corrosion and release of nickel*.
- The nickel released by the combined components is measured and all of it applied to the smallest component.

Assessment of results is as follows: -

- Where results identify significant release of nickel the sample is checked to see if the article as a whole would FAIL.
- Where results indicate nickel release that is between 0.1 and 0.5 then the sample is reported as a REVIEW - this indicates that further work must be undertaken, eg. to identify a rogue component.
- Where results indicate no nickel release, ie less than 0.1, then the sample is reported as a PASS.

This test is used as part of a Due Diligence Defence policy where articles are repeat orders and have shown compliance in earlier shipments, or where a known manufacturer with a good pass record is sending items with common components and/or from a common method of manufacture.

Where this is the case samples are tested through a lower cost procedure (approximately one third of the cost of a Full Reference test) so that a higher level of screening can be undertaken for the same overall outlay, or a cost saving can be made without jeopardising compliance under the Directive.

**This more extreme reaction may occur because of the presence of dissimilar metals in the solution and is less likely to happen under Full Reference conditions.*

Further information is available on our website

www.assayoffice.co.uk/Analytical-Services/Analytical_Services_QC_Test.asp



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