

DIN EN 1811:2015-10 (E)

Reference test method for release of nickel from all post assemblies which are inserted into pierced parts of the human body and articles intended to come into direct and prolonged contact with the skin (includes Amendment A1:2015)

Contents		Page
European foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Principle of the procedure	7
5	Reagents	7
6	Apparatus	8
7	Samples	9
7.1	Sample area	9
7.1.1	Definition of sample area	9
7.1.2	Determination of sample area	9
7.1.3	Masking of areas other than sample area	9
7.2	Sample degreasing before testing	9
7.3	Quality control samples	9
8	Procedure	10
8.1	Preparation of test solution	10
8.2	Release procedure	10
8.3	Determination of nickel	11
8.3.1	General	11
8.3.2	Calibration solutions	11
8.3.3	Detection limit and quantification limit	11
8.3.4	Number of test samples	11
8.3.5	Number of replicate measurements	11
8.4	Blank tests	11
9	Calculations	11
9.1	Nickel release	11
9.2	Interpretation of results	12
9.2.1	General	12
9.2.2	Conformity assessment"	12
9.2.3	Uncertainty budget	13
10	Test report	13
Annex A (informative) !Expanded measurement uncertainty of the test procedure and compliance assessment		14
Annex B (normative) Requirements for quality control material		16

Annex C (normative) Requirements for preparation of all post assemblies which are inserted into pierced parts of the human body and articles intended to come into direct and prolonged contact with the skin prior to nickel testing	18
C.1 General	18
C.2 Requirements and principle	18
C.3 Determination of the nickel release test method	18
C.4 Determination of surfaces coming into direct and prolonged contact with the skin or pierced parts of the body	18
C.4.1 Procedures for homogeneous and inhomogeneous articles	18
C.4.1.1 General	18
C.4.1.2 Homogeneous articles and all post assemblies	19
C.4.1.3 Procedure for inhomogeneous articles	19
C.4.1.3.1 General	19
C.4.1.3.2 Situation 1	19
C.4.1.3.2.1 General	19
C.4.1.3.2.2 Procedure 1	19
C.4.1.3.2.3 Result	19
C.4.1.3.3 Situation 2	19
C.4.1.3.3.1 General	19
C.4.1.3.3.2 Procedure 2	19
C.4.1.3.3.3 Result	20
C.4.1.3.4 Situation 3	20
C.4.1.3.4.1 General	20
C.4.1.3.4.2 Procedure 3	20
C.4.2 Jewellery products	20
C.4.2.1 General	20
C.4.2.2 Post assemblies and associated parts	20
C.4.2.2.1 Parts coming into direct and prolonged contact with the skin and/or pierced parts of the body	20
C.4.2.2.2 Decorative attachments of post assemblies	21
C.4.2.3 Necklaces, bracelets, chains and anklets	22
C.4.2.4 Bangles	23
C.4.2.5 Rings	23
C.4.2.6 Watches	24
C.4.2.6.1 General	24
C.4.2.6.2 Parts to be tested	24
C.4.2.6.3 Parts to be removed from watch before testing	25
C.4.3 Other articles such as textiles, footwear, garments, leather goods and mobile phones	25
C.5 Methods of determining the surface areas	26
C.5.1 Surface area measurements	26
C.5.2 Minimum surface area	26
C.5.3 Simplification of surface area determination using common shapes of consumer products	26
C.6 Testing apparatus prior to nickel release testing	26
Annex D (informative) Articles made from composite materials	28
Bibliography	29