

EN 1811 Testing of Nickel release Products with prolonged skin contact

TÜV Rheinland LGA Products - Information

December 2021

After discussions in the relevant committees, a final draft for the revision of DIN EN 1811 has now been published for further comment:

"E DIN EN 1811:2021-11 - 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".

E DIN EN 1811:2021-11 can be found here: [Link](#)

This standard is not only applicable to jewellery and watch straps, but also to other metal products that have direct prolonged contact with the skin, such as metal parts on clothing and shoes, mobile phones or belt buckles.

It is expected that the final version will be published in late 2022/early 2023. Transition periods are not expected.

The standard is not applicable to eyeglasses, since here the nickel release is determined according to DIN EN 16128.

CHANGES IN THE MEASUREMENT OF THE SURFACE IN CONTACT WITH THE SKIN

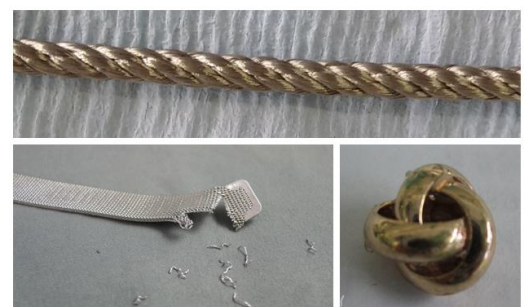
Investigations have shown that internal surfaces, e.g. of twisted ropes (jewellery), do contribute to the exposure. With this background it was decided to consider the projected or also rolled out surface in the calculation of surfaces in the future. Thus, the internal surfaces will no longer be taken into account.

This leads to the fact that e.g. when testing watch straps which are hollow inside or consist of braided material (mesh straps, refer to picture on the right), the surface used for the calculation of the nickel release becomes significantly smaller and the measured value ($\mu\text{g}/\text{cm}^2/\text{week}$) larger.

For watch straps, for example, this can account for differences by a factor of 3-5, in extreme cases (articles made of twisted or braided fine wire) up to approximately a factor of 20.

The same applies to other jewellery with open, internal surfaces, e.g. rings with stones in settings, knot-like or braided jewellery.

In summary, the situation is such that no action is required for products that contain no or little amount of nickel ("nickel-free electroplating") and thus release nickel in undetectable quantities. In the case of products that release measurable levels of nickel according to the currently applicable standard, there may be a need for action.



TESTING OF WATCHES

The sampling and disassembly of watches and watch straps is more clearly described in the updated standard. It is now made clear, for example, that internal parts which are difficult to access (e.g. bars in watch straps) are no longer removed or covered with varnish. These parts thus contribute to the nickel release.

This can lead to different, mostly higher findings than according to the currently valid standard.

ACTION NOTES

It is already possible when testing to the current DIN EN 1811 to take into account the expected changes regarding area calculation and to report two results. First using the area measured according to the valid standard (a larger area in most cases) and second according to the new proposal (smaller surface area). This gives the opportunity to estimate the consequences of the change in the standard at this stage.

When testing watch straps, it is already possible to test according to the new version because the changes are within the interpretation range of the existing standard. If results according to both versions are required, then two measurements may be necessary.

Further information on current legal changes can also be found on our homepage at www.tuv.com or <https://www.tuv.com/regulations-and-standards/en/>.

Further technical information can be obtained from:

TÜV Rheinland LGA Products GmbH

Technical Competence Center | Softlines

Dr. Ansgar Wennemer

Wennemer@de.tuv.com

Am Grauen Stein

51105 Cologne

Germany

Steffen Tuemptner

Steffen.Tuemptner@de.tuv.com

Alboinstr. 56

12103 Berlin

Germany

Info box: For additional information about REACH Services please see www.tuv.com

Disclaimer

This newsletter contains only information of a general nature without specific reference to particular natural or legal persons, objects or facts. This newsletter is not to be understood as legal advice and does not replace such advice in any case. TÜV Rheinland LGA Products GmbH (TRLPG) cannot guarantee that all formulations correspond exactly to the respective official versions. TRLPG makes every effort to ensure that the information provided is correct and up to date. Nevertheless, errors and ambiguities cannot be completely ruled out. TRLPG therefore accepts no responsibility for the topicality, correctness, completeness or quality of the information provided. For the official text, please refer to Official National or EU Journal.

Liability claims regarding damage caused by the use of any information provided, including any kind of information which is incomplete or incorrect, will therefore be rejected.