



ODU-USA Inc.
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Change Notification: MINI-SNAP® Connectors to become Chrome (VI)-free

Dear Ladies and Gentlemen,

Changes in the production process of our MINI-SNAP® connectors are becoming necessary. The previously used electroplating process has to be adapted due to a revised EU regulation.

The substance chromium trioxide (chromium (VI) oxide) has been included in the list of substances subject to authorization under the REACH regulation (EU 1907/2006 REACH & Annex XIV, see also EU regulation 1272/2008).

From today's perspective, the migration to a Chrome (VI)-free decorative surface must take place earlier than previously expected. We have been informed in the last few weeks that the EU intends to reject the CTACsub application for Chrome (VI) for DECO/POP (Use 3). This exception request from our electrolyte supplier was open for quite some time, but the ban will probably take effect immediately after official confirmation of the rejection. We must therefore expect a ban issued by the EU on the use of Chrome (VI) by mid-2023.

In order to comply with this regulation, we have evaluated alternative surface treatment processes for our MINI-SNAP® portfolio. We can now announce that we are switching from the currently used Chrome (VI) to Chrome (III). Chrome (III) is already used in various other industries as a replacement for Chrome (VI).

For our matt chrome surface, we have opted for a Chrome (III) electrolyte, which achieves an equivalent performance in all the qualification tests carried out. In our assessments, we took into account the applicable product specifications, such as the number of mating cycles, electrical properties, salt spray test and corrosion resistance, autoclavability and the visual appearance (color) of our MINI-SNAP® products.

We are introducing this new surface treatment as standard for the entire MINI-SNAP® portfolio without exception. However, surface treatment with Chrome (III) is not possible at our site in Mühldorf. For this purpose, a new electroplating and turning shop is currently under construction at our location in Sibiu, Romania (commissioning from the end of Q1, 2023). In order to not only meet the deadline requirement, but also to ensure appropriate flexibility and capacity for the future, we will rely on redundant production locations (second source) both for electroplating and for the relevant prefabrication steps. As a



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further measure to secure availability, we will also start the qualification of the galvanisation process with our partner in Austria by the end of 2022 and, if necessary, use this resource, as well as our ODU internal capacities, with respect to all production sites.

Briefly summarized: As your reliable partner, we would like to use this letter to inform you about the forthcoming changes with respect to the use of Chrome (VI). We will implement all legal and operational requirements in good time in order to meet the changeover deadline. You will continue to receive the ODU products in the usual quality and your warranty claims remain unaffected. Since this is a legal requirement that must be met, we cannot and must not make any exceptions.

We remain at your disposal if you have any questions. Please feel free to get in touch with your contact person from Sales.

Mühldorf,

Joachim Grimm
Head of Product Management

Mark Bingham
Head of Product Management
Circular Connectors

TEST REPORT SUMMARY



Release Date: 11/2022

Extensive tests were performed during the qualification of the new Chrome (III) electrolyte for the matt chrome surface finish on our MINI-SNAP® & MEDI-SNAP® Metal portfolio. Representative samples with various sizes were selected across the different portfolios. These samples were tested by comparison against corresponding samples from the legacy galvanization procedure. The results are summarized below:

Test	Short Description	Result	
Salt-Mist-Test	96 hrs; DIN EN ISO 9227 (2017-07)	No visible corrosion; No difference between the legacy & new samples. This is also valid for mixed samples.	
Autoclaving	500 cycles DIN EN 13060 (2019-02)	No signs of corrosion; No difference between the legacy & new samples.	
Contact Resistance	Measured new and after 5,000 mating cycles; DIN EN 60512-2-6 (2004-01)	The resistance values decrease after 5,000 mating cycles for both legacy & new variants. The values for the new variants are on average lower than the legacy plated variants (i.e. slightly better).	
Mating & Demating Testing	Forces measured between 0 - 5,000 mating cycles; DIN EN 60512-13-1 (2008-11)	No abnormalities observed on the surfaces of both the legacy and new variants after 5,000 cycles. Mating and Demating forces are comparable.	
Mechanical Life- Cycle-Test	5,000 mating cycles; Visual Inspection; DIN EN 60512-9-1 (2010-12)	After 5,000 mating cycles, all plugs and receptacles show similar/ typical wear on the claws and the inside of the device parts. The parts display no abnormalities.	

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