

Laboratorien Dr. Döring Haferwende 21 28357 Bremen

Statex
Produktions- und Vertriebs GmbH
Kleiner Ort 11

28357 BREMEN

March 25th, 2020

TEST REPORT 240320032

Order No. Customer: -

Project Name: Copper Tape Kiel

Sampling: by Customer

Sample Transport: by Customer on 24.03.2020

Sample Reception: 24.03.2020

Period of Measurement 24.03.2020 – 25.03.2020

Sample Number: 118032 - 118035 / 20

Sample Material: Solid

Packaging: PE-Bag

Remarks: express test

Miscellaneous: Measuring errors of these analytical measurements are within normal ranges. More information about this upon request. Results are only valid for the samples of this analysis. Copying and distribution of this report requires written permission by Laboratorien Dr. Döring GmbH

Results of Analysis: Page 2

Measurement Methods: Eluate DIN EN 12457-4: 2003-01
Copper DIN EN ISO 17294-2 (E29): 2005-02

Quality Check:

M. Sc. Farzin Mostaghimi
(Project Manager)

Dr. Joachim Döring
(CEO)

Laboratory Number	118032	118033	118034	118035
Sample Name	Shieldex Kiel 1	Shieldex Kiel 2	Reference Sample Cu- tube 1	Reference Sample Cu- tube 2
Remarks	DIN EN 12457-4	DIN EN 12457-4	DIN EN 12457-4	DIN EN 12457-4
Dimension	ELUATE [µg/L]	ELUATE [µg/L]	ELUATE [µg/L]	ELUATE [µg/L]
Area[cm ²]	30,7	28,8	28,1	28,3
Copper	23.000	23.000	3.300	3.400

Summary of laboratory results



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Summary of laboratory results

All samples have been cut to equivalent size with a comparable surface area. The weight of the Copper-Tape sample has been about half of the solid Copper tube weight. Within a time period of 12 hours the Copper-Tape released 23.000 µg/L Cu-Ions in an aqueous solution. However the elemental copper tube released 3.400 µg/L Cu-Ions in the same time. Compared to usual Copper, the Copper-Tape is able to release more Cu-Ions in the same time with a comparable surface area and less weight.

The product benefits from the concentration of Cu-Ions due to the three dimensional metallization process. Ion-release rates are proportionately 7 times more efficient with the Copper-Tape compared to solid Copper.