

TEST REPORT No. 90-23-0182

JOB

No.: 90230073
Client: LEMON trade, s.r.o.
Ul. Družstevná 849,
027 43 Nižná,
Slovak republic

OBJECT OF TESTING

Product: Gabion welded steel mesh (100x100) mm, diameter of the wire \varnothing 4 mm
Manufacturer: client
Manufacturing plant: at the manufacturer's address
Standard of product: -

PRODUCT SAMPLE

Description of sample: Three pcs of gabion welded steel mesh (100x100) mm with dimension (33 x 33) cm
Designation of sample by client: not listed
Production date: Not specified
Place and date of sampling: Not specified
Sampler: Client
Place and date of delivery: TSUS, n.o. – laboratory branch in Tatranská Štrba, 24th April 2023
Designation of sample by lab: 23/0151

TESTS

Corrosion resistance - salt spray test - accredited test

Test procedure: STN EN ISO 9227: 2023 Corrosion tests in artificial atmospheres. Salt spray tests
Deviations from the standard: none

Test specimens

- Description: see product sample listed above
- Prepared by: client
- Conditioning: Conditioning of the samples before testing at (23 ± 2) °C and (50 ± 5) % RH
- Status prior to the test: -

Test execution

- Place: TSUS, n.o. – laboratory branch in Tatranská Štrba
- Conditions: Method: neutral salt spray test (NSS)
 - Test temperature (35 ± 2) °C, At evaluation: temperature 25.6 °C, 44 % r.v.v.
 - NaCl solution $(50 \pm 5$ g / l),
 - pH 6.5 to 7.2,
 - Duration of exposure 1000 h,
 - Lighting used in the evaluation acc. to STN EN ISO 13076, light intensity: 1440 Lx

After end of the exposure the surfaces of the test specimens have been washed with water and dried by air. Then was perform visual assessment of the appearance of all surfaces of the test specimens, with the naked eye:

The occurrence of red corrosion on the surfaces of the test specimens was evaluated according to STN EN ISO 4628-3 and according to the principles in STN EN ISO 4628-1. Expression of the result in % of the surface area of the test specimens. Areas of 10 mm from the edges of the test samples have not been evaluated.

Table 1 Rating scheme for designating the quantity and the size of defects (table 1, 2 of ISO 4628-1 and 4628-3)

Degree of rusting	Quantity of defects	Area of defects (%)	Size of defects
0	None, i.e. no detectable defects	0	Not visible under x 10 magnification
1	Very few, i.e. small, barely significant number of defects	0.05	Only visible under magnification up to x 10
2	Few, i.e. small, but significant number of defects	0.5	Just visible with normal corrected vision
3	Moderate number of defects	1	Clearly visible with normal corrected vision (up to 0.5 mm)
4	Considerable number of defects	8	0.5 mm to 5 mm
5	Dense pattern of defects	40 to 50	Larger than 5 mm

- Test personnel: Ing. Vladimír Geletka, PhD.
- Date: from 24th April 2023 to 06th June 2023

Applied instrumentation:

ID	Name	Range	Unit	Division
M900113	Digital temperature/ humidity meter	-39,6 to 59,9	°C	0,1
M900092	Corrosion chamber NSS	1 to 99	% RH	1
M900109	Luxmeter	400 to 3990	lx	1

TEST RESULTS:

Table 2 Steel meshes - visual assessment of the total surface area after 1000 h exposure in NSS

Sample No.	Area of red corrosion according to EN ISO 4628-3 (%)
23/0151-1	Without corrosion
23/0151-2	Without corrosion
23/0151-3	Without corrosion

Notes:

- white / gray corrosion or change in appearance was observed on the samples - surface darkening, which was not subject to evaluation

Photos after exposure

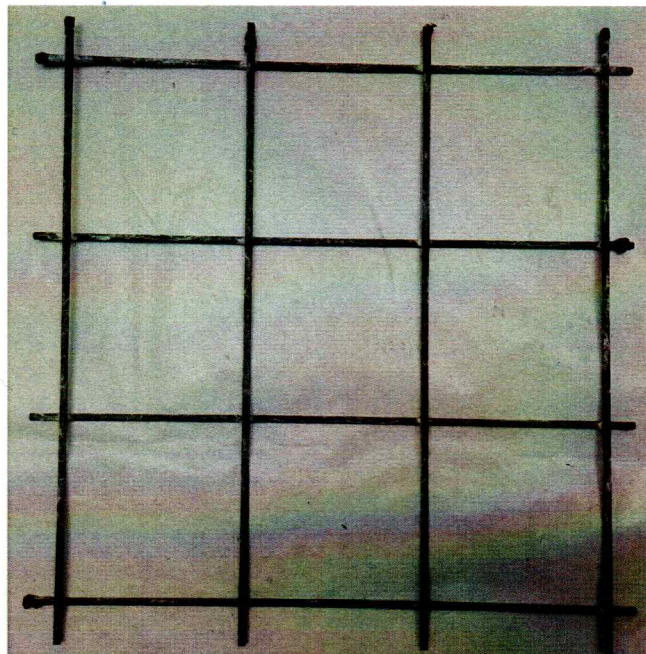


Photo 1 – sample 23/0151-1

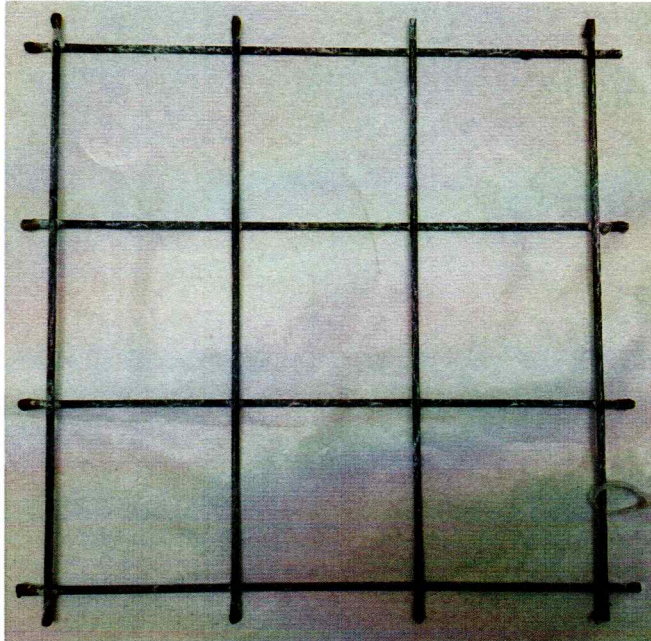
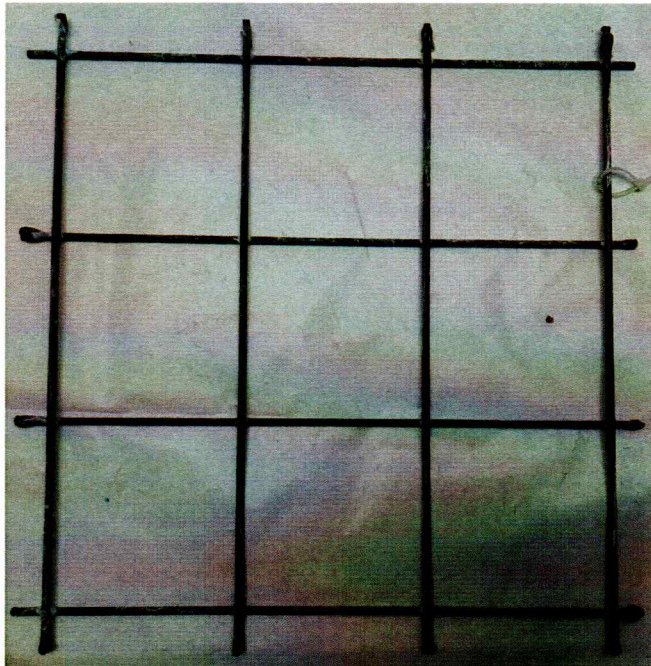



Photo 1 – sample 23/0151-2



Date of report:
Prepared by:

06th June 2023
Ing. Vladimír Geletka, PhD.

Authorized by:


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Ing. Erika Halčinová
Head of laboratory branch



Notes:

- Unless the Test Laboratory makes the sampling, data on the manufacturer, its manufacturing plant and about the sampling are presented according to information provided by the client.
- The tests were executed in accordance with the stated test methods.
- Presented results are relevant to the product sample only.
- This report shall not be reproduced except in full without written approval of the Test Laboratory.

----- End of test report -----