

CERTIFIKAT O PRESKUSU EST CERTIFICATE

naročnik applicant

LE-TEHNIKA, d.o.o., Kranj Šuceva ulica 27, 4000 Krani

lastnik owner

LE-TEHNIKA, d.o.o., Kranj Šuceva ulica 27, 4000 Kranj

vzorec sample

vzorčenje

sampling

LED street lamp Luxtella

identifikacijska številka

code L 01012C70R1

identification number

izvedel naročnik done by applicant

Podrobnosti so podane v poglavju vzorčenje. Details are given in chapter sampling.

ustreza rezultat preskusa result of test meets

Podrobnosti so podane v poglavju merilni rezultati. Details are given in chapter measurement results.

datum preskusa date of test

03. 01. 2018 - 15. 02. 2018

izvedel performed by Anica Tacer Internally digitally signed datum odobritve

date of approval 19.02.2018

odobril approved by Metka Kolmančič Bohinec

vodja laboratorija head of laboratory





SLOVENSKA AKREDITACIJA SIST EN ISO/IEC 17025 **LP-004**

Their Tacer

Rezultati označeni z # se nanašajo na neakreditirano dejavnost

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alKB.



številka certifikata certificate number

612-L689-17-1

vzorčenje sampling

Sampling was carried out by the applicant, who brought the identified samples to the laboratory.

mesto vzorčenja place of sampling LE-TEHNIKA, d.o.o., Kranj Šuceva ulica 27, 4000 Kranj

stanje vzorca pri prevzemu

state of sample at acceptance

Without damages

podatki o vzorcu

sample information

sample	sample number
LED street lamp Luxtella, code L 01012C70R1	0091656

preskusni postopek

test procedure

Test in salt chamber was carried out in accordance with internal instructions LC10N10 and international standard EN ISO 9227: 2012 NSS.

mesto preskusa

place of test

LOTRIČ Certificiranje d.o.o.

Laboratorij 1.01, Savska loka 4, 4000 Kranj

priprava vzorcev pred preskusom

samples preparation before

Surface of samples was not cleaned prior the test.

test

uporabljeni referenčni etaloni

reference standards used

type	manufacturer	certificate number
salt chamber	Heraeus Vötsch	251-234-17-6

sledljivost traceability

The reported measurement values are traceable to national measurement standards and thus to internationally supported realizations of the SI-units.



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Test NSS Test NSS

podrobnosti postopka procedure details

Performance of the test in salt spray chamber

- a) Samples were tested in salt test chamber Heraeus Vötsch VSN 1000, certificate number 251–234–17–6, according to standard SIST EN ISO 9227:2012 NSS.
- b) Salty water was prepared with deionized water with conductivity <20 μ S/cm and sodium chloride p.a.
- c) Base material: Al casting and stainless steel
- d) Test samples: see sample information
- e) Surface of samples was not cleaned before the test.
- f) Treatment:
- Al cast covers and carrier lights are powder coated, grey, high gloss, info on the thickness of the coating is known only to the client.
- g) Test samples: 1 items was tested.
- h) After the test salt residues were eliminated under running water T < 40 °C and dried with air from the distance \sim 300 mm.
- i) Tested sample was placed in the chamber under angle 20° $\pm\,5^{\rm o}$ from vertical.
- j) Position of sample was not changed during the test.
- k) Entire test was carried out within 1000 hours without disturbing.
- l) Control of conditions in salt chamber with reference samples was not carried out.
- m) During the test the temperature in the chamber was 35 °C ±2 °C.
- n) # The condense volume during the test valued from 1,34 ml/h to 1,54 ml/h, on average 1,44 ml/h.
- o) # During the test pH valued 7,0 and 7,2.
- p) # Concentration of condense during the test valued from 54,1 g/l to 54,4 g/l, on average 54,3 g/l.
- q) Corrosion was checked on reference samples between 15. 01. 2018 and 17. 01. 2018 and valued 72,34 g/m².
- r) No deviations were noticed in the chamber during the test.
- s) The chamber was opened during the test due to condense control and inspection of samples.

merilni rezultati measurement results

	sample	estimation after 1000 hours NSS test
I	LED street lamp Luxtella, code L 01012C70R1	Al cover + holder light Assessment of degree of blistering - SIST EN ISO 4628/2:2016 on powder-coated surface: - Degree of blistering # 0 - 0 (S0), without blistering, (regard to pictures in standard)

Assessment of degree of rusting - SIST EN ISO 4628/3:2016 on surface:

- Degree of rusting: # Ri 0, without rusting, (regard to pictures in standard)

Descriptive estimation

Lacquered surface of the housing and the light bracket shows no evidence of corrosion products, blistering or any other visual changes.

The surface around the screws shows blistering (blister size up to 5 mm).

Leakage of white zinc corrosion products from the holes is evident between the lacquered surface and screws.

Screws

Evaluation or assessment surface screws after the corrosion test according to SIST EN ISO 10289:2002

Evaluation # Rp: 10/- (Without corroded surfaces – 0 % corrosion)



slike pictures



Picture 1: LED street lamp Luxtella - upper side, after 1000 hours of NSS



Picture 2: LED street lamp Luxtella - lower side, after 1000 hours of NSS



Picture 3: Screw after 1000 hours of NSS



Picture 4: Holder lamps with mounting screws after 1000 hours of NSS

izjava statement

The results are based exclusively on commissioned work and tested sample. Opinions and interpretations are not part of the accredited scope.