



# Labor für Umwelterprobung und Werkstoffprüfung

Telefon +49 (0) 3 41 / 4 84 32 - 25 Telefax +49 (0) 3 41 / 4 84 32 - 14 E-Mail umwelterprobung@tzoleipzig.de

# Technologie-Zentrum für Oberflächentechnik und Umweltschutz Leipzig GmbH

Hornstraße 5 • D-04249 Leipzig
Telefon +49 (0) 3 41 / 4 84 32 - 0 • Fax +49 (0) 3 41 / 4 84 32 - 14
E-Mail info@tzoleipzig.de

## **TEST REPORT**

## No. 008b/15

Client ROLEC Gehäuse-Systeme GmbH

Mr. Volker Borcherding

Kreuzbreite 2 D – 31737 Rinteln

**Date of order** 2015-01-09

Date of receiving the specimens 2015-01-12

**Period of testing** 2015-01-12 and 2015-01-13

### 1 TEST OBJECT

#### 1.1 Designation / Number of pieces

Enclosure of series technoPlus as follows:

1.1.1	TP090	/	1	piece
1.1.2	TP092	/	1	piece
1.1.3	TP110	/	1	piece
1.1.4	TP132	/	1	piece
1.1.5	TP172	/	1	piece

The specimen in accordance with sub-clause 1.1.4 is prestressed with test of IP Code 6X, IP Code X6 and IP Code X7, see test report 008a/15.

The cover of the enclosure has to be screwed with a torque (approx. 1.0 Nm). given by the client

1.2 Producer see Client

### 2 TASK

Testing to determine the degrees of protection IP Code X9K in accordance with ISO 20653: 2013-02

TZO / LUW page 2 of 2 pages

Client ROLEC Gehäuse-Systeme GmbH Rinteln

\*

#### 3 TEST PROGRAMME

Date of order. 2015-01-09

#### 3.1 Initial visual inspection

# 3.2 Testing to determine the degree of protection – IP Code X9K – against ingress of water under high pressure steam jet cleaning in accordance with ISO 20653

• Test was done in 5 runs.

Flat jet nozzle and jet discharge in accordance with figure 7 of ISO 20653

in connection with high pressure steam jet cleaner

Kärcher Type HDS 9/18-4 M

Exposition of specimen mounted on a rotating table in accordance

with figure 9 of ISO 20653 table rotation speed (5  $\pm$  1) rpm

Test report 008b/15

Jet angles 0°, 30°, 60° and 90°

Flow rate of water 14 to 16 l / min

Water temperature and pressure  $(80 \pm 5) \% // 800 0$  to 10000 kPa

Test duration 30 s in each jet angle

· visual inspection with regard to entered water

<u>Test criterion</u> No water shall be visible in the enclosure.

#### 4 RESULTS

#### 4.1 Initial visual inspection

Damages or defects are not visible.

## 4.2 IP Code X9K

No water is visible inside the enclosures. No changes are visible.

### **5 EVALUATION**

The specimens in accordance with sub-clause 1.1 have passed the test to determine the degree of protection IP Code X9K in accordance with ISO 20653 : 2013–02.

Leipzig, 2015-01-13

Laboratory for Environmental
Testing and Material Testing

Annex Sheet 1/1

Dr.-Ing. Frank Erler Laboratory Manager

The test result is true only for the specimen(s) mentioned in the clause "test item (specimen)". It is allowed to copy the complete test report only. When the test report shall be copied in the form of extracts the agreement must be given by the test laboratory for them.

Figure 1 Exposition IP X9K, example 0°



Figu re 2 Exposition IP X9K, example 30°



Figure 3 Exposition IP X9K, example 60°



Fig ure 4 Exposition IP X9K, example 90°