86 Nikola Petkov Blvd, 1618 Sofia, BULGARIA
tel. + 359 2 856 10 82; fax + 359 2 955 96 38
e-mail: nisi@nisi.bg, web:www.nisi.bg

**TESTING CENTER FOR CONSTRUCTION (ICS)**
**at Building Research Institute (NISI) Ltd.**

Laboratory: "Concrete, reinforcement, construction materials and products"

# *TEST REPORT*
## *№ 838-1-616/26.10.2017 г.*

***Product:*** 8 mm six –wall head concrete screw, diameter 6,3 mm for installation of sandwich elements walls to a concrete under-construction.

***Applicant:*** **BAUFIX Bulgaria OOD**
23 block Levski G complex, Sofia
Application form from 24.10.2017

***Test methods:***
БДС EN ISO 6892-1:2016 „Metallic materials - Tensile testing - Part 1: Method of test at room temperature (ISO 6892-1:2016)"
БДС 6372:1986 „Metallic materials-Shear force testing methods."
БДС EN ISO 7438:2001 „Metallic materials-Bending force testing. (ISO 7438:1985) "

***Date of receiving of the sample:*** № 838/24.10.2017

***Test samples:*** 15 броя, taken and provided by the Applicant.

***Test period:*** 24.10.2017 – 26.10.2017

***Manager of ICS:***
Res.Ass.Eng. Tsvetana Gyurova

*The results relate only to the tested samples.*
*Extracts of the test report may not be reproduced without written consent of the Building Testing Center at NISI-Ltd.*



## *Test results:*

| No | Characteristic | Unit of measurement | Test method | № of the sample | Test result [1)] | Requirement according [2)] | Test conditions |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1. | **Tensile breaking force** | N | БДС EN ISO 6892-1:2016 | 616 | **16800** | **≥ 16000** | (23 ± 2)°C (55 ± 5)% RH |
| 2. | **Shear breaking force** | N | БДС 6372:1986 | | **12400** | **≥ 11000** | |
| 3. | **Pull out force from concrete predrilled with drill diametre:**<br>-**5,00 mm** (concrete C20/25)<br>-**5,50 mm** (concrete C25/30) | N | БДС EN ISO 6892-1:2016 | | **12300**<br>**11900** | **≥ 11000**<br>**≥ 11000** | |
| 4. | **Screw head deviation caused by an evenly distributed on a 10 cm arm load:**<br>- 50 N<br>- 100 N<br>- 150 N<br>- 200 N<br>- 250 N<br>- 300 N<br>- 350 N<br>- 400 N<br>- 450 N | mm | БДС EN ISO 7438:2001 | | **1,5**<br>**3,2**<br>**4,8**<br>**6,2**<br>**7,5**<br>**8,8**<br>**10,4**<br>**12,6**<br>**15,6** | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | |

***Tests are carried out by:***
Y.Yordanov

***Head of the Laboratory:***
Res.Ass.Eng.Emil Penev

***Manager of ICS:***
Res.Ass.Eng. Tsvetana Gyurova