

## **Report of Test Results**

Assignment No: M 0446 / 2014 Page 1 / 8

Client Nevoga GmbH Znaimerstraße 4 83395 Freilassing

Assignment of : 17 November 2014

Test objects : Underlay mountings plates

Assignment : To determine deformation under load/

pressure load

Test performed on : 18 November 2014

Test performed by : Kiwa GmbH, Munich branch

Test period : November 2014

Garching, 30 May 2014

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This test report comprises 8 pages.

The test results relate to the sample material that was presented for testing. The test material was used up. Duplication and publication of the test report in excerpts is only permitted with our written authorisation. Opinions and interpretations of the test centre are indicated pursuant to DIN EN ISO/IEC 17 025 point 5.10.5 by the use of *italics*.



### **Contents**

4	Remarks	6
3.1	Pressure load test	5
3	Test results	5
2	Test procedure	4
1	General	3

### Annex:

• Photographs



#### 1 General

Kiwa GmbH was instructed by Nevoga GmbH, represented by Mr Ostermeier, to determine the stress capacity/deformation under load of underlay mounting plates.

Mounting plates were supplied by Mr Ostermeier on 17 November 2014 for this purpose. The plates supplied were as follows:

5x UP 02 A solid plate

5x UP 05 A solid plate

5x UP 10 A solid plate

5x UP 10 NA lightweight plate

5x UP 15 A solid plate

5x UP 15 NA lightweight plate

5x UP 20 A solid plate

5x UP 20 NA lightweight plate

All samples were taken and all tests performed by personnel and with apparatus from our laboratory in Garching.



M 0446 / 2014 Page 4 / 8

#### 2 Test procedure

The following mounting plates were selected for the test:

3x UP 15 NA lightweight plate

3x UP 20 A solid plate

3x UP 20 NA lightweight plate

The mounting plates were photographed against a measurement scale prior to testing and checked for flatness.

The plates were then subjected to loads of 20 KN = 2t and 50 KN = 5t in the test press and their deformation subsequently inspected.

At the end of the test sequence, a load was applied to the plates until they reached deformation, and the deformation recorded.



# M 0446 / 2014

Page 5 / 8

## 3 Test results 3.1 Pressure load test

Plate	UP 20 NA Lightweight			
No.	1	2	3	
Dimensions	69 x 69 x 20	69 x 69 x 20	69 x 69 x 20	
At 20 KN pressure	69 x 69 x 20	69 x 69 x 20	69 x 69 x 20	
At 50 KN pressure	69 x 69 x 20	69 x 69 x 20	69 x 69 x 20	
At maximum load of 247 KN	72 x 72 x 18	-	-	

Plate		UP 20 A Solid	
No.	1	2	3
Dimensions	69 x 69 x 20	69 x 69 x 20	69 x 69 x 20
At 20 KN pressure	69 x 69 x 20	69 x 69 x 20	69 x 69 x 20
At 50 KN pressure	69 x 69 x 20	69 x 69 x 20	69 x 69 x 20
At maximum load of 201 KN	69 x 69 x 20	-	-



## M 0446 / 2014 Page 6 / 8

Plate	UP 15 NA Lightweight			
No.	1	2	3	
Dimensions	69.5 x 69.5 x 15	69.5 x 69.5 x 15	69.5 x 69.5 x 15	
At 20 KN pressure	69.5 x 69.5 x 15	69.5 x 69.5 x 15	69.5 x 69.5 x 15	
At 50 KN pressure	69.5 x 69.5 x 15	69.5 x 69.5 x 15	69.5 x 69.5 x 15	
At maximum load of 174 KN	70 x 70 x 14.5	-	-	

#### 4. Remarks

The mounting plates of various thicknesses display no deformation at a pressure load of 50 KN.

Garching, 18. November 2014

Kiwa GmbH





Fig. 1: Mounting plate UP 20 NA lightweight before load test.



Fig. 2: Mounting plate UP 20 NA lightweight after maximum stress, with distinctly discernible deformation in the plate on the right.



M 0446 / 2014 Page 8 / 8



Fig. 3: Mounting plate UP 15 NA lightweight before load test.



Fig. 4: Mounting plate UP 15 NA lightweight after maximum stress, with slight discernible deformation.