

**Baustoffprüfstelle Wismar GmbH - Lübsche Strasse 109 - 23966 Wismar**

Short Test Report-No.: K 0934/08 from 11.06.2008

|                                    |  |
|------------------------------------|--|
| <b>Testing institute:</b>          | Institute of Certification for Building Materials Wismar GmbH  |
| <b>Sampler:</b>                    | Manager of the Institute of Certification for Building Materials Wismar GmbH<br>Graduate Engineer Ellen Stoige |
| <b>Manufacturer:</b>               | CREATON AG<br>Wertinger Weg 1, 99991 Großengottern   |
| <b>Content of the order:</b>       | Testing of the roofing tiles according to DIN EN 1304:2005-07  |
| <b>Description of the samples:</b> | Large-size pantiles  |
| <b>Description of the plant:</b>   | FUTURA   |
| <b>Sampling point and date:</b>    | Storage place  |

| Testing standard and characteristic  | Unit | Testing results | Requirements according to DIN EN 1304:2005-07 | fulfilled yes/no |
|--|------|-----------------|---|------------------|
| <b>1. DIN EN 1024 - Geometric characteristics</b>                              |      |                 |   |                  |
| <b>1.1 Regularity of the shape</b>   |      |                 |   |                  |
| - Mean value of the regularity   | %    | 0,2             | ≤ 1,5   | yes              |
| <b>1.2 Straightness</b>  |      |                 |   |                  |
| - Mean value of the straightness lengthways                                    | %    | 0,2             | ≤ 1,5   | yes              |
| - Mean value of the straightness diagonally                                    | %    | -               | none  |                  |
| <b>1.3 Dimension tolerances - individual dimensions or overlap dimensions</b>  |      |                 |   |                  |
| - Difference of the length mean value according to the manufacturer details    | %    | 0,6             | ≤ 2,0   | yes              |
| - Difference of the width mean value according to the manufacturer details     | %    | 0,6             | ≤ 2,0   | yes              |
| - Difference of the average cover length according to the manufacturer details | %    | 0,0             | ≤ 2,0   | yes              |
| - Difference of the average cover width according to the manufacturer details  | %    | 0,0             | ≤ 2,0   | yes              |
| <b>2. DIN EN 539-1 - Water impermeability</b>                                  |      |                 |   |                  |
| <b>Testing method 2 - Requirement level 1</b>                                  |      |                 |   |                  |
| - Mean value of the impermeability's coefficient                               |      | 0,60            | ≤ 0,8   | yes              |
| - Highest individual value of the impermeability's coefficient                 |      | 0,600           | ≤ 0,85  | yes              |
| <b>3. DIN EN 538 - Flexural Strength</b>                                       |      |                 |   |                  |
| - Breaking load  | kN   | 4               | ≥ 1,2   | yes              |
| <b>4. DIN EN 539-2 - Frost Resistance</b>                                      |      |                 |   |                  |
| - Method E 150 changes of frost to dew (performance level 3)                   |      | passed          | ≥ 150   | yes              |
| <b>5. DIN EN 1304 - Marking encoded or clear text</b>                          |      | available       | completely                                    | yes              |

The extraction, the preparation of the samples and the implementation of the test occurred according to DIN EN 1304:2005-07 and accompanying DIN EN testing standards.

The individual results can be derived from the complete test report-no.: 0934/08.

The quality control is carried out according to DIN EN 1304:2005-07.

**The requirements according to DIN EN 1304:2005-07 are fulfilled.**