



## **Product Certificate for Reinforcing Steel Products** No.: DK-FC-023-10080-004 version 3

Issued by FORCE Certification A/S in accordance with ABC-Reinforcing steel General terms for certification of reinforcement steel products 17th edition - October 2019

| Issued to:                   | Besta Eisen- und Stahlhandelsgesellschaft mbH<br>Zur Rauhen Horst 7<br>32312 Lübbecke<br>Germany   |
|------------------------------|--|
| for the following product:   | Reinforcing steel in bars  |
| Production address:          | Same as above  |
| Certified product:           | Reinforcing steel in bars straightened from coils, designated B500A  |
| Coil certificate:            | DK-FC-030-10080-001 and DK-Fc-10080-003 issued to<br>Badische Stahlwerke GmbH by FORCE Certification A/S   |
| Manufacturing process:       | Straightening by spinning  |
| Product specifications:      | Characteristic strength, $R_{eH} = 500 \text{ N/mm}^2$ (MPa)<br>Characteristic ductility, $R_m/R_{eH} = 1.05$ and $A_{gt} = 2.5\%$<br>Class: B, according to Euro code 2<br>Characteristic bonding $f_R = 0,035$ for 5 mm $\leq d \leq 6$ mm<br>$f_R = 0,040$ for 7 mm $\leq d \leq 12$ mm<br>Diameters, D= 5 mm through 12 mm |
| Standard specifications:     | Weight per meter, bend ability, weld ability and fatigue are all fulfilled according to DS/EN 10080:2006 and DS/EN 1992-1-1+AC, Annex C 2008 (Euro Code 2)   |
| Rib geometry:                | As shown overleaf  |
| Rolled-in marking:           | 1 (Germany) and 35 (BESTA) as shown overleaf   |
| Initial Inspection:          | FORCE-Dantest CERT file No. m1472-161985   |
| Type testing:                | FORCE Technology file Nos. m1471-162607/m1471-188481/m1471-<br>202283/m1471-214010 and FORCE Certification historical data stored<br>under file No. 80.971-645/09  |
| Previous certificate:        | DK-FC-023-10080-004 version 2, dated 2019-04-11  |
| The evening reinforcing stor | al product fulfils the requirements in Danish Standard DS/EN 10080, 2 <sup>nd</sup> Edition  |

The examined reinforcing steel product fulfils the requirements in Danish Standard DS/EN 10080, 2<sup>nd</sup> Edition 2006-01-13, as well as Eurocode 2, DS/EN 1992-1-1+AC:2008 including DS/EN 1992-1-1 DK NA:2017.

The product certificate is valid for 5 years from the date of issue provided that periodical inspections are carried out during this period. If the product is altered or modified or the certification agreement terminates this certificate is no longer valid. The manufacturer shall inform FORCE Certification A/S about any planned modification.

Date of issue: Signature: 2019-10-23 Date of expiry: 2024-10-23 FC task No.: 119-23720 FC ID No.: DK-0200-07448

Kasper Munk Eliasen

Certification Manager



## The basis for issuing of certificate DK-FC-023-10080-004 version 3

| Danish Standard                       | DS/EN 10080, 2 <sup>nd</sup> Edition 2006-01-13  |
|---------------------------------------|--|
| FORCE Certification document          | Publication  |
|                                       | ABC-Reinforcement steel  |
|                                       | 17 <sup>th</sup> Edition of October 2019   |
| FORCE Certification document          | Check list, Edition 1  |
| Initial Inspection Report             | FORCE-Dantest CERT file No. m1472-161985   |
| Type Testing Report(s)                | FORCE Technology file Nos. m1471-162607/m1471-<br>188481/m1471-202283/m1471-214010 and FORCE<br>Certification historical data stored under file No.<br>80.971-645/09 |
| Continuous surveillance               | Annual audit reports   |
| QA responsible to FORCE Certification | Daniel Gomes   |
| Note version 3                        | Editorial corrections of specifications  |

Rib configurations and rolled-in markings by missing ribs

