



**B500B - CROATIA**

STANDARD: HRN 1130-2:2008 HRN 10080-2012

PRODUCT TYPE: REINFORCING STEEL BARS (CELIK ZA ARMIRANJE BETONA)

DIMENSION:  $\varnothing$  mm 8 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 24 - 25 - 26 - 28 - 30 - 32 - 40

**CHEMICAL COMPOSITION (%)**

|                  | C    | S     | P     | Cu   | N     | Ceq  | It is permitted to exceed the maximum values for carbon by 0,03 % by mass, provided that the carbon equivalent value is decreased by 0,02 % by mass |
|------------------|------|-------|-------|------|-------|------|---|
| Cast analysis    | 0,22 | 0,050 | 0,050 | 0,80 | 0,012 | 0,50 |   |
| Product analysis | 0,24 | 0,055 | 0,055 | 0,85 | 0,014 | 0,52 |   |

**MECHANICAL PROPERTIES**

|   | Characteristic value | Single value |
|---|----------------------|--------------|
|   | Min                  | Min          |
| UPPER YIELD STRENGTH $R_{eH}$ (MPa)                       | 500                  | 475          |
| $R_m/R_{eH}$  | 1,08                 | 1,06         |
| PERCENTAGE TOTAL ELONGATION AT MAXIMUM FORCE $A_{gt}$ (%) | 5,0                  | 4,5          |

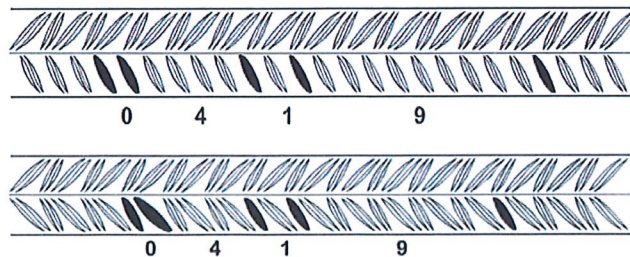
**GEOMETRY**

| DEVIATION FROM NOMINAL MASS (%) | $\varnothing \leq 8$ | $\pm 6,0$         |
|---------------------------------|----------------------|-------------------|
|                                 |                      | $\varnothing > 8$ |
| RELATIVE RIB AREA $f_R$         | $\varnothing = 8$    | $\geq 0,045$      |
|                                 | $\varnothing = 10$   | $\geq 0,052$      |
|                                 | $\varnothing > 12$   | $\geq 0,056$      |

**BEND AND RE-BEND**

|                          |  |                       |
|--------------------------|--|-----------------------|
| Angle of bend            |  |                       |
| = 180°                   |  |                       |
| Bend mandrel             |  |                       |
| $\varnothing \leq 16$ mm | $\varnothing > 16$ mm                      |                       |
| 3 $\varnothing$          | 6 $\varnothing$                            |                       |
| Angle of bend            | Ageing                                     | Re-bend angle         |
| = 90°                    | 1 h (-0,+15 min) at 100°C $\pm 10^\circ$ C | $\geq 20^\circ$       |
| Bend mandrel             |  |                       |
| $\varnothing \leq 16$ mm | 16 < $\varnothing \leq 25$ mm              | $\varnothing > 25$ mm |
| 5 $\varnothing$          | 8 $\varnothing$                            | 10 $\varnothing$      |

**MARKING**



QCE

Baruzzi Mario

QSM

Brunori Andrea