

## TECHNICAL SPECIFICATION: REBARS ALFA 500S



### Description of the product

Weldable, sustainable reinforcing steel featuring improved bonding and high ductility, hot rolled with in-line heat treatment “Tempcore”.

### Range of dimensions

- Diameter: **8 – 32 mm**
- Length: **6 – 18 m**

### Packaging

- 5 fastenings for bundle length < 9 m:
- 7 fastenings for bundle length 9 to 14 m
- 9 fastenings for bundle length 15 m
- 11 fastenings for bundle length 16 to 18 m

Double-strap fastening with 7 mm diameter wire

Bundle weight:

- **6 m ~ 1400 kg**
- **12 m ~ 2300 kg**

### Labelling

Each bundle is identified with a metal or paper plastic label containing the following information:

- Company logo
- Heat number
- Diameter
- Length
- Weight
- Steel grade
- Production date
- Standards references
- Certification logos
- QR Code

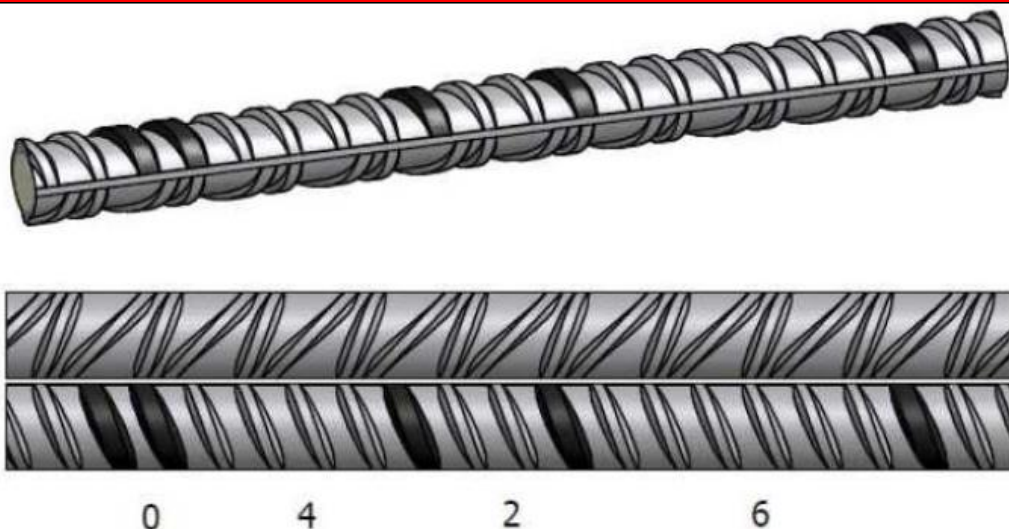
# TECHNICAL SPECIFICATION: REBARS ALFA 500S



## Certifications

Each delivery is accompanied by the certificate 3.1 (standard UNI EN 10204)

## RIBS GEOMETRY AND ROLLING MARKING



## CONFORMITY TO STANDARDS

| Country        | Standard            | Grade             | Certifications |
|----------------|---------------------|-------------------|----------------|
| ITALY          | D.M. 17/01/2018     | B 450 C           | ✓              |
| FRANCE         | NFA 35080/1         | B 500 B           | ✓              |
| GERMANY        | DIN 488             | B 500 B           | ✓              |
| ROMANIA        | ST 009              | B 500 C           | ✓              |
| CZECH REP.     | DIN 488             | B 500 B           | ✓              |
| HUNGARY        | DIN 488             | B 500 B / B 500 C | ✓              |
| SLOVAKIA       | DIN 488             | B 500 B           | ✓              |
| SWITZERLAND    | SIA 262             | B 500 B           | ✓              |
| SLOVENIA       | SIST EN 10080       | B 500 B           | ✓              |
| CROATIA        | HRN 1130-2          | B 500 B           | ✓              |
| SERBIA         | SRPS EN 10080       | B 500 B           | ✓              |
| POLAND         | IBDiM-KOT-2022/0813 | B 500 C           | ✓              |
| SPAIN          | UNE 36068           | B 500 S           |                |
| UNITED KINGDOM | BS 4449             | B 500 B           |                |
| PORTUGAL       | LNEC E450           | A 500 NR          |                |
| USA            | ASTM A615 / A705    | GRADO 60 / 40     |                |

## CHEMICAL COMPOSITION

| C %<br>max | P %<br>max | S %<br>max | Cu %<br>max | N %<br>max | Ceq.<br>Max |
|------------|------------|------------|-------------|------------|-------------|
| 0.22       | 0.050      | 0.050      | 0.80        | 0.012      | 0.50        |
| (0.24)     | (0.055)    | (0.055)    | (0.85)      | (0.014)    | (0.52)      |

The figures in brackets refer to product analysis

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| MECHANICAL PROPERTIES |                 |                            |                            |                  |               |            |               |
|-----------------------|-----------------|----------------------------|----------------------------|------------------|---------------|------------|---------------|
| Standard              | Grade           | $R_e$<br>N/mm <sup>2</sup> | $R_m$<br>N/mm <sup>2</sup> | $R_m/R_e$        | $A_{gt}$<br>% | $A_5$<br>% | $A_{10}$<br>% |
| D.M. 17/01/2018       | <b>B450 C</b>   | ≥ 450                      | ≥ 540                      | ≥ 1.15<br>≤ 1.35 | ≥ 7.5         |            |               |
| NFA 35080/1           | <b>B 500 B</b>  | ≥ 500                      |                            | ≥ 1.08           | ≥ 5           |            |               |
| SIA 262               | <b>B 500 B</b>  | ≥ 500                      |                            | ≥ 1.08           | ≥ 5           |            |               |
| DIN 488               | <b>B 500 B</b>  | ≥ 500                      |                            | ≥ 1.08           | ≥ 5           |            |               |
| ST 009                | <b>B 500 C</b>  | ≥ 500                      |                            | ≥ 1.15<br>≤ 1.35 | ≥ 7.5         |            | ≥ 16          |
| ELOT 1421-3           | <b>B 500 C</b>  | ≥ 500                      |                            | ≥ 1.15<br>≤ 1.35 | ≥ 7.5         |            |               |
| HRN 1130-2            | <b>B 500 B</b>  | ≥ 500                      |                            | ≥ 1.08           | ≥ 5           |            |               |
| EN 10080              | <b>B 500 B</b>  | ≥ 500                      |                            | ≥ 1.08           | ≥ 5           |            |               |
| IBDiM-KOT-2022/0813   | <b>B 500 C</b>  | ≥ 500                      |                            | ≥ 1.15<br>≤ 1.35 | ≥ 8           |            |               |
| UNE 36068             | <b>B 500 S</b>  | ≥ 500                      |                            | ≥ 1.08           | ≥ 5           |            |               |
| BS 4449               | <b>B 500 B</b>  | ≥ 500                      |                            | ≥ 1.08           | ≥ 5           |            |               |
| LNEC E450             | <b>A 500 NR</b> | ≥ 500                      |                            | ≥ 1.08           | ≥ 5           |            |               |
| ASTM A615             | <b>GR. 60</b>   | ≥ 420                      | ≥ 620                      | ≥ 1.10           |               |            | ≥ 9           |

| GEOMETRICAL CHARACTERISTICS     |         |         |         |         |
|---------------------------------|---------|---------|---------|---------|
| Ø mm                            | 8       | 10      | 12      | ≥ 14    |
| Relative rib area fR            | ≥ 0.040 | ≥ 0.040 | ≥ 0.040 | ≥ 0.056 |
| Relative rib area fR<br>DIN 488 | ≥ 0.045 | ≥ 0.052 | ≥ 0.056 | ≥ 0.056 |