

STANDARD REFERENCE:

EN ISO 683-4: 2018 (Hot-rolled products) | EN 10277: 2018 (Bright products)

RODACCIAI REFERENCES AND COMPARABLE STANDARDS

| EUROPE | | ITALY | GERMANY | | FRANCE | UK | USA |
|------------------------------------|----------|-----------------------|--------------------|----------|------------------|------------------|---------------|
| EN 10087: 1998 EN 10277-3: 2008 | | (UNI 4838-80) | (DIN 1651-88) | | (NF A 35-561-92) | (BS 970 pt.3-91) | ASTM A 29 |
| Grade | N° | | Werkstoff | N° | | | |
| (11SMnPb37+Te+Bi) | (1.0737) | (CF 9 SMnPb 36+Te+Bi) | (9 SMnPb 36+Te+Bi) | (1.0737) | S 300 Pb+Te+Bi | - | (12L14+Te+Bi) |

CHEMICAL COMPOSITION (CAST ANALYSIS) (%)

| C / max | Si / max | Mn | P / max | S | Pb | Te | Bi |
|---------|----------|-----------|---------|-----------|-----------|-----------|-----------|
| 0,14 | 0,05 | 1,00±1,50 | 0,11 | 0,34÷0,40 | 0,20÷0,35 | 0,01÷0,05 | 0,05÷0,09 |

MECHANICAL PROPERTIES OF BRIGHT STEEL

| Size mm | as Rolled and/or as Rolled + Turned (+SH) | | Cold Drawn (+C) | | |
|------------|---|----------------------|-----------------------------|----------------------|------------|
| | Hardness HB max | R _m (MPa) | R _{p0,2} (MPa) min | R _m (MPa) | A5 (%) min |
| ≥5 ≤10 | - | - | 440 | 510÷810 | 6 |
| >10 ≤16 | - | - | 410 | 490÷760 | 7 |
| >16 ≤40 | 169 | 380÷570 | 375 | 460÷710 | 8 |
| >40 ≤63 | 169 | 370÷570 | 305 | 400÷650 | 9 |
| >63 ≤100 | 154 | 360÷520 | 245 | 360÷630 | 9 |

For size <5 mm the mechanical properties may be agreed at the time of enquiry and order

WORKING TEMPERATURES RECOMMENDED

| Operation | Hot forgings deformation | Normalizing | Soft annealing |
|-----------|-----------------------------|-------------|----------------|
| °C | 950±1250 | 870÷910 | 650÷700 |

