

# DIN EN 10263-3:2018-02 (E)

## Steel rod, bars and wire for cold heading and cold extrusion - Part 3: Technical delivery conditions for case hardening steels

---

<b>Contents</b>		<b>Page</b>
European foreword .....		3
1	Scope .....	4
2	Normative references .....	4
3	Terms and definitions .....	4
4	Classification and Designation .....	4
4.1	Classification .....	4
4.2	Designation .....	4
5	Production process .....	5
5.1	Steelmaking process .....	5
5.2	Deoxidation .....	5
6	Requirements .....	5
6.1	Delivery conditions .....	5
6.2	Chemical composition .....	5
6.2.1	Cast analysis .....	5
6.2.2	Product analysis .....	5
6.3	Mechanical properties .....	5
6.4	Hardenability .....	5
6.5	Surface quality .....	6
6.6	Supplementary or special requirements .....	6
Table 1 -- Combination of heat-treatment condition at delivery, product forms and applicable requirements .....		7
Table 2 -- Surface condition at delivery .....		8
Table 3 -- Steel grades and chemical composition. Heat analysis % (by mass) .....		8
Table 4 -- Permissible deviations between product analysis and the limiting values specified in Table 3 for the heat analysis .....		10
Table 5 -- Mechanical properties of non-alloyed steel grades .....		11
Table 6 -- Mechanical properties of boron-alloyed steel grades .....		12
Table 7 -- Mechanical properties of alloyed steel grades .....		13
Table 8 -- Hardness limits for steel grades with standard hardenability (+H grades - see 6.4.1) .....		15
Table 9 -- Hardness limits for steel grades with restricted hardenability scatter bands (+HH and +HL grades - see 6.4.2) .....		16