

# DIN EN 13674-4:2020-02 (E)

## Railway applications - Track - Rail - Part 4: Vignole railway rails from 27 kg /m to, but excluding 46 kg/m

---

<b>Contents</b>		<b>Page</b>
European foreword .....		4
Introduction .....		6
1	Scope .....	8
2	Normative references .....	8
3	Terms and definitions .....	8
4	Information to be supplied by the purchaser .....	9
5	Steel grades .....	10
6	Dimensions, static properties, linear mass and tolerances .....	11
7	Manufacture .....	11
7.1	Product integrity .....	11
7.1.1	Factory production control .....	11
7.1.2	Best practice manufacture .....	11
7.2	Blooms .....	11
7.3	Rails .....	11
7.4	Identification .....	11
7.4.1	Branding .....	11
7.4.2	Hot stamping .....	12
7.4.3	Cold stamping .....	12
7.4.4	Other identification .....	12
8	Qualification of the manufacturer .....	12
9	Acceptance tests .....	13
9.1	Laboratory tests .....	13
9.1.1	General .....	13
9.1.2	Chemical composition .....	13
9.1.3	Microstructure .....	17
9.1.4	Decarburization .....	17
9.1.5	Hardness .....	17
9.1.6	Tensile tests .....	18
9.1.7	Retest procedures .....	19
9.2	Dimension tolerances .....	19
9.2.1	Profile .....	19
9.2.2	Straightness and twist .....	20
9.2.3	Cutting and drilling .....	20
9.3	Gauges .....	20
9.4	Inspection for internal quality and surface quality .....	21
9.4.1	Internal quality .....	21
9.4.2	Surface quality .....	23
9.4.3	Checking of automated testing equipment .....	24
Annex A (normative) Rail profiles .....		34
DIN EN 13674-4:2020-02 EN 13674-4:2019 (E) Annex B (informative) Comparison of steel designations referred to in this European Standard compared to those in EN 10027-2 .....		66
Bibliography .....		67