

DIN EN 13601:2021-07 (E)

Copper and copper alloys - Copper rod, bar and wire for general electrical purposes

Contents		Page
European foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	7
4	Designations	7
4.1	Material	7
4.1.1	General	7
4.1.2	Symbol	7
4.1.3	Number	7
4.2	Material condition	8
4.3	Product	8
5	Ordering information	9
6	Requirements	11
6.1	Composition	11
6.2	Mechanical properties	11
6.3	Bending characteristics	11
6.4	Electrical properties	11
6.5	Freedom from hydrogen embrittlement	11
6.6	Dimensions and tolerances	11
6.6.1	Diameter or width across-flats	11
6.6.2	Corner configuration	11
6.6.3	Length	13
6.7	Form tolerances	13
6.7.1	General	13
6.7.2	Twist	13
6.7.3	Straightness	14
6.7.4	Flatness of bar	15
6.8	Wire in coils	15
6.9	Mass tolerances	15
6.10	Surface condition	15
7	Sampling	15
7.1	General	15
7.2	Analysis	15
7.3	Mechanical and electrical tests	16
8	Test methods	16
8.1	Analysis	16
8.2	Tensile test	16
8.3	Hardness test	16
8.4	Bend test	16
8.5	Electrical resistivity test	17
8.6	Hydrogen embrittlement test	17
8.7	Retests	17

8.8	Rounding of results	17
9	Declaration of conformity and inspection documentation	18
9.1	Declaration of conformity	18
9.2	Inspection documentation	18
10	Marking, packaging, labelling	18
Annex A (informative) Characteristics of coppers for electrical purposes		27
A.1	General grouping of copper types	27
A.2	General characteristics	27
A.3	Particular characteristics	27
Bibliography		29