DIN EN 12452:2012-08 (E)

Copper and copper alloys - Rolled, finned, seamless tubes for heat exchangers

Contents

Page

Foreword 3

1 Scope 5

2 Normative references 5

3 Terms and definitions 5

4 Designations 6
4.1 Material 6
4.2 Material condition 7
4.3 Product 7

5 Ordering information 8

6 Requirements 9
6.1 Composition 9
6.2 Mechanical properties 9
6.3 Dimensions and tolerances 9
6.4 Tolerances on form 10
6.5 Surface quality 10
6.6 Technological requirements 11

7 Sampling 11
7.1 General 11
7.2 Analysis 11
7.3 Mechanical tests 11

8 Test methods 12
8.1 Analysis 12
8.2 Tensile test 12
8.3 Hardness test 12
8.4 Technological tests 12
8.5 Freedom from defects tests 12
8.6 Retests 13
8.7 Rounding of results 13

9 Declaration of conformity and inspection documentation 13
9.1 Declaration of conformity 13
9.2 Inspection documentation 13

10 Marking, packaging, labelling 14

Annex A (normative) Freedom from defects tests 18

Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Pressure Equipment Directive (PED) 97/23/EC 20

Bibliography 21

Figures Figure 1 -- Rolled finned tube 6

Tables Table 1 -- Composition of copper and copper alloys 15

Table 2 -- Mechanical properties of copper and copper alloy tubes before fining 16

Table 3 -- Tolerances on outside diameter 16

Table 4 -- Tolerances on length 16

Table 5 -- Tolerances on fin pitch 17

Table 6 -- Sampling rate 17

Table ZA.1 -- Correspondence between this European Standard and Directive 97/23/EC 20