

DIN 21057-11:2017-04 (E)

Pipe classes for process plants - Part 11 : Technical delivery conditions for pipe components of austenitic stainless steels of material group 8.1

Contents

Page

Foreword	4
1 Scope	5
2 Normative references	6
3 Symbols and abbreviations.....	8
4 General information	8
4.1 Prevention of brittle fracture — Minimum allowable temperature TS_{min}	8
5 Inspection documents.....	8
5.1 General	8
5.2 Additional requirements for distributors	8
6 Supplementary provisions	8
6.1 Resistance to intergranular corrosion.....	8
6.2 Qualification of welding procedures, welders and NDT personnel	9
6.3 Filler materials	9
6.4 Weld spatter	9
7 Technical delivery conditions for pipes.....	10
8 Technical delivery conditions for pipe fittings.....	11
8.1 General requirements for pipe fittings.....	11
8.2 Pipe elbows.....	12
8.3 Reducers	12
8.4 Tees.....	13
8.5 Caps.....	13
9 Technical delivery conditions for reinforced nozzles.....	14
10 Technical delivery conditions for flanges.....	15
10.1 General requirements.....	15
10.2 Technical delivery conditions for welding neck flanges.....	15
10.3 Technical delivery conditions for blind flanges	16
11 Technical delivery conditions for fasteners	16
11.1 Strength characteristics of cold work hardened bolts at elevated temperatures	16
11.2 Hexagon head bolts.....	17
11.3 Threaded stud bolts.....	17
11.4 Double-end studs.....	18
11.5 Hexagon nuts for hexagon head bolts and threaded stud bolts	19
11.6 NF-type hexagon nuts for double-end studs.....	20
11.7 Washers.....	20
Annex A (normative) Dimensions and allowable pressures	21
A.1 Dimensional specifications	21
A.2 Allowable pressures at elevated temperatures	21
A.3 Pipe	21
A.4 Fittings.....	24
A.4.1 Pipe elbow	24

A.4.2	Reducers	27
A.4.3	Tees.....	30
A.4.4	Caps.....	40
Annex B (informative)	Pipe classes PN 10 to PN 100, material 1.4541 (HC).....	42
B.1	General	42
B.1.1	Fluid assignment.....	42
B.2	Additional requirements	42
B.3	Nominal diameter ranges	42
B.4	Key to branch tables	42
B.5	Sample pipe classes	43
B.5.1	Pipe class 10HC01B1.....	43
B.5.2	Pipe class 16HC01B1.....	48
B.5.3	Pipe class 25HC01B1.....	53
B.5.4	Pipe class 40HC01B1.....	58
B.5.5	Pipe class 63HC01B1.....	63
B.5.6	Pipe class 100HC01B1	68