

DIN 21057-10:2017-04 (E)

Pipe classes for process plants - Part 10: Technical delivery conditions for pipe components of non-alloyed and alloyed steel with specified properties at elevated temperatures of material group 1.1

Contents	Page
Foreword	4
1 Scope	5
2 Normative references	6
3 Symbols and abbreviations.....	8
4 General notes	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.....	9
6.1 Qualification of welding procedures, welders and NDT personnel	9
6.2 Filler materials.....	9
7 Technical delivery conditions for pipes.....	9
8 Technical delivery conditions for pipe fittings.....	10
8.1 General requirements for pipe fittings.....	10
8.2 Pipe elbows.....	11
8.3 Reducers.....	11
8.4 Tees.....	12
8.5 Caps.....	12
9 Technical delivery conditions for reinforced nozzles.....	13
10 Technical delivery conditions for flanges.....	14
10.1 General requirements for flanges	14
10.2 Technical delivery conditions for welding neck flanges.....	15
10.3 Technical delivery conditions for blind flanges.....	15
11 Technical delivery conditions for fasteners	16
11.1 Hexagon head bolts.....	16
11.2 Threaded stud bolts.....	17
11.3 Double-end studs.....	18
11.4 Hexagon nuts for hexagon head bolts and threaded stud bolts	18
11.5 NF-type hexagon nuts for double-end studs.....	19
11.6 Washers.....	19
Annex A (normative) Dimensions and allowable pressures	20
A.1 Dimensional specifications.....	20
A.2 Allowable pressures at elevated temperatures	20
A.3 Pipe	20
A.4 Fittings.....	23
A.4.1 Pipe elbows.....	23
A.4.2 Reducers	26
A.4.3 Tees.....	29
A.4.4 Caps.....	46

Annex B (informative) Pipe classes PN 10 to PN 100, material P235GH (CA)	49
B.1 General	49
B.1.1 Fluid assignment	49
B.2 Additional requirements	49
B.3 Nominal diameter ranges	49
B.4 Key to branch tables	49
B.5 Sample pipe classes	50
B.5.1 Pipe class 10CA01B1	50
B.5.2 Pipe class 16CA01B1	56
B.5.3 Pipe class 25CA01B1	62
B.5.4 Pipe class 40CA01B1	68
B.5.5 Pipe class 63CA01B1	73
B.5.6 Pipe class 100CA01B1	78