

DIN EN 12007-1:2012-10 (E)

Gas infrastructure - Pipelines for maximum operating pressure up to and including 16 bar - Part 1: General functional requirements

Contents		Page
Foreword		4
1	Scope	5
2	Normative references	5
3	Terms, definitions and abbreviations	6
3.1	General terminology	6
3.2	Pressure related terminology	7
4	Quality	8
4.1	Quality and safety management	8
4.2	Competence	8
5	Gas characteristics	9
5.1	Gas quality and family	9
5.2	Odorization	9
5.3	Toxicity and lack of oxygen	9
6	Materials	9
7	Design	10
7.1	General	10
7.2	Basic design data	10
7.3	Pressure relationships	11
7.4	Pipeline sections	12
7.4.1	General	12
7.4.2	Routing	13
7.4.3	Pipework inside buildings	13
7.4.4	Pipework above ground	13
7.4.5	Bridge crossings	14
7.4.6	Underwater crossing	14
7.4.7	Limiting interference from external causes	14
7.5	Service lines	16
7.6	Pressure regulating stations and installations	16
7.7	Measuring stations	16
7.8	Valves	16
7.9	Corrosion protection	16
8	Limiting environmental impact	18
9	Transportation, storage and handling of materials	18
10	Construction	18
10.1	General	18
10.2	Connections to existing systems	19
11	Pressure testing	20
12	Commissioning and decommissioning	20

13	Operation, survey and maintenance	20
13.1	General	20
13.2	Record system and traceability	21
13.3	Operation centres	21
13.4	Pipeline operator's work	21
13.5	Third party work	22
13.6	Pipeline maintenance	22
13.7	Emergency record system	23
14	Emergency plan or intervention plan	23
Annex A (informative) Areas with high seismic risk		25
A.1	General	25
A.2	Procedure	25
A.3	Strength calculation	26
A.3.1	Vibratory ground motion (shaking)	26
A.3.2	Permanent ground movement	26
A.3.3	Possible action to prevent the allowable/limit values being exceeded	27
Bibliography		29