

Contents

	Page
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 General information.....	6
5 Materials.....	6
5.1 General.....	6
5.2 Material grouping system	6
5.3 Material documentation	6
5.4 Prevention of brittle fracture	6
6 Design.....	7
6.1 General.....	7
6.2 Time-independent nominal design stress	7
6.3 Creep design.....	8
6.4 Shells under external pressure	8
6.5 Fatigue design.....	8
7 Manufacture	9
7.1 General.....	9
7.2 Qualification of welding procedure specifications (WPQR)	9
7.4 Joint preparation.....	9
7.5 Preheat.....	10
7.6 Production test, reference criteria	10
7.7 Extent of testing.....	10
7.8 Performance of test and acceptance criteria	10
7.9 Forming procedures.....	10
7.9.1 Cold forming.....	10
7.9.2 Hot forming	11
7.10 Heat treatment after forming	11
7.10.1 General.....	11
7.10.2 Heat treatment of flat products after cold forming	11
7.10.3 Heat treatment of tubular products after cold forming	11
7.10.4 Heat treatment after hot forming.....	12
7.11 Sampling of formed products	12
7.11.1 Cold formed products without heat treatment	12
7.11.2 Hot formed or cold formed products with heat treatment	12
7.12 Tests.....	13
7.12.1 Base material	13
7.12.2 Butt welds	13
7.13 Post weld heat treatment (PWHT).....	13
7.14 Repairs.....	13

POLSKI KOMITET NORMALIZACYJNY 2024

8	Inspection and testing.....	13
8.1	General.....	13
8.2	Non-destructive testing of welded joints	14
8.2.1	General.....	14
8.2.2	Demonstration of satisfactory experience for testing group 2	14
8.3	Determination of extent of non-destructive testing.....	15
8.4	Selection of non destructive testing methods for surface imperfections.....	19
8.5	Standard hydrostatic test.....	19
	Annex A (normative).....	20
	Annex B (informative) Designations of some nickel alloys	22
	Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2014/68/EU.....	27