ISO 12736-3:2023-10 (E)

Oil and gas industries including lower carbon energy - Wet thermal insulation systems for pipelines and subsea equipment - Part 3: Interfaces between systems, field joint systems, field repairs and pre-fabricated insulation

Contents

Page

Foreword ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **2**

4 Abbreviated terms **8**

5 Conformance **8**
5.1 Rounding 8
5.2 Conformity to requirement 8

6 Field joint material, system interfaces and repairs **8**
6.1 Material classes 8
6.2 Types of interfaces 9

7 Project specific qualification processes for production and application procedures for field joints **9**
7.1 General requirements 9
7.2 Purchase order requirements 10
7.2.1 General information 10
7.2.2 Additional information 11
7.3 Production qualification process 11
7.3.1 Process description 11
7.3.2 Project specific qualification considerations 12
7.3.3 Procedure qualification trial 12
7.3.4 Pre-production trial 13
7.3.5 Production testing 13
7.4 Application procedures 13
7.4.1 Application procedure specification 13
7.4.2 Inspection and testing plan 15
7.4.3 Qualification of operators 15

8 Production testing and inspection for field joints **17**
8.1 General 17
8.2 Material tests and inspection 17
8.3 System test and inspection 17
8.4 Inspection documents and traceability 17
8.5 Guidance in generating an ITP 17

9 Requirements for field repairs of wet thermal insulation and field joints **34**
9.1 General 34
9.2 Damage/defect characterization 34
9.3 Repair materials for each of the material classes and compatibility 34
9.4 Repair execution 34

10 Final documentation **34**

11 Pre-fabricated insulation **35**
11.1 General 35
11.2 Material classes 35
11.3 Project specific qualification processes 35
11.4 Information to be supplied by the system purchaser 36
11.5 Manufacturing of pre-fabricated insulation 36
11.6 Inspection and testing plan 36

11.7 Requirements for repairs 37
11.7.1 General 37
11.7.2 Damage/Defect characterization 37
11.7.3 Repair method 38
11.7.4 Repair materials 38
11.8 Final documentation 38
11.9 Installation of pre-fabricated insulation 47
12 Handling, storage and transportation at site for field joints and pre-fabricated insulation 47
Annex A (informative) **Guidelines for using this document 48**
Annex B (informative) **Guidelines on the design of field joint systems on a project basis 52**
Annex C (informative) **Field joint adhesion testing 55**
Annex D (informative) **Guidelines for pre-fabricated insulation 58**
Annex E (informative) **Pre-fabricated insulation leak test 62**
Bibliography 65