DIN 30670:2012-04 (En glisch)

Polyethylene coatings on steel pipes and fittings - Requirements and testing

Contents

Page

Foreword 5

1 Scope 7

2 Normative references 7

3 Terms and definitions 8

4 Symbols and abbreviations 9

5 Coating 9
5.1 General 9
5.2 Types of coating 9

6 Information to be supplied by the purchaser 10
6.1 Mandatory information 10
6.2 Order options 10

7 Application of the coating 10
7.1 General 10
7.2 Surface preparation 10
7.3 Composition of the coating 10
7.3.1 General 10
7.3.2 Epoxy resin primer 12
7.3.3 PE adhesive 12
7.3.4 Polyethylene coating 12
7.3.5 Cutback 13

8 Requirements 13
8.1 General 13
8.2 Material properties 13
8.3 Production monitoring 17
8.3.1 Surface preparation 17
8.3.2 Pipe coating 17

9 Inspection and testing 18
9.1 General 18
9.2 Inspection documents 18
9.3 Types and frequency of tests 18

10 Repairs 21

11 Marking 21

12 Handling, transportation and storage 21

Annex A (normative) Inspection of thickness 22

Annex B (normative) Degree of cure of the epoxy resin layer 23

B.1 General 23
B.2 Apparatus 23

B.3 Description of procedure 23
B.3.1 Sampling 23
B.3.2 Measurement 23
B.3.3 Evaluation 23

Annex C (normative) Cathodic disbondment (CD test) 24

C.1 General 24
C.2 Apparatus 24
C.3 Procedure 26
C.3.1 Sampling 26
C.3.2 Measurement 26
C.3.3 Evaluation 26

Annex D (normative) Peel strength 27

D.1 General 27
D.2 Apparatus 27
D.3 Procedure 29
D.3.1 Sample preparation 29
D.3.2 Measurement 29
D.3.3 Evaluation 29

Annex E (normative) Continuity (holiday detection) 30

E.1 General 30
E.2 Apparatus 30
E.3 Procedure 30

Annex F (normative) Elongation at break 31

F.1 General 31
F.2 Apparatus 31
F.3 Procedure 31
F.3.1 Sample preparation 31
F.3.2 Measurement 31
F.3.3 Evaluation 31

Annex G (normative) Measuring the melt mass-flow rate (MFR) 32

G.1 General 32
G.2 Apparatus 32
G.3 Procedure 32
G.3.1 Sampling 32
G.3.2 Measurement 32
G.3.3 Evaluation 32

Annex H (normative) Impact resistance and low temperature impact resistance 33

H.1 General 33
H.2 Apparatus 33
H.3 Procedure 33
H.3.1 Test specimen preparation 33
H.3.2 Procedure and evaluation 33

Annex I (normative) Indentation resistance 34

I.1 General 34
I.2 Apparatus 34
I.3 Procedure 34
I.3.1 Test piece preparation 34
I.3.2 Procedure and evaluation 34

Annex J (normative) Specific electrical coating resistance 35

J.1 General 35
J.2 Apparatus 35
J.3 Procedure 35
J.3.1 Test piece preparation 35
J.3.2 Procedure and evaluation 35

Annex K (normative) UV resistance 36

K.1 General 36
K.2 Apparatus 36
K.3 Procedure .....
K.3.1 Sample preparation 36
K.3.2 Measurement 36
K.3.3 Evaluation 36

..... 36

Annex L (normative) Thermal ageing resistance 37

L.1 General 37
L.2 Apparatus 37
L.3 Procedure 37
L.3.1 Sample preparation 37
L.3.2 Measurement 37
L.3.3 Evaluation 37