

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	36
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