

DIN EN 15889:2011-09 (E)

Fire-fighting hoses - Test methods

Contents	Page
Foreword	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Test methods	6
Annex A (normative) Test for measurement of hose cover thickness (lay-flat fire-fighting hoses)	7
A.1 Test piece	7
A.2 Apparatus	7
A.3 Procedure	7
A.4 Test report	7
Annex B (normative) Adhesion test (lay-flat fire-fighting hoses)	8
B.1 Test piece	8
B.2 Apparatus	8
B.3 Procedure	8
B.4 Test report	9
Annex C (normative) Kink pressure test (lay-flat and semi-rigid fire-fighting hoses)	10
C.1 Test piece	10
C.2 Apparatus	10
C.3 Procedure	10
C.4 Test report	10
Annex D (normative) Accelerated ageing test	11
D.1 Lay-flat fire-fighting hoses	11
D.2 Semi-rigid hoses	12
Annex E (normative) Surface abrasion resistance test (semi-rigid fire-fighting hoses)	13
E.1 Test pieces	13
E.2 Apparatus	13
E.3 Procedure	14
E.4 Test report	15
Annex F (normative) Point abrasion resistance test (semi-rigid fire-fighting hoses)	16
F.1 Test pieces	16
F.2 Apparatus	16
F.3 Procedure	17
F.4 Test report	18
Annex G (normative) Low temperature flexibility test (lay-flat fire-fighting hoses and semi-rigid fire-fighting hoses)	19

G.1	Lay-flat fire-fighting hoses	19
G.2	Semi-rigid fire-fighting hoses	23
Annex H (normative) Hot surface resistance test (semi-rigid and lay-flat fire-fighting hoses)		24
H.1	Test piece	24
H.2	Apparatus	24
H.3	Procedure	27
H.4	Test report	28
Annex I (normative) Pressure loss test (semi-rigid fire-fighting hoses)		29
I.1	Test piece	29
I.2	Apparatus	29
I.3	Procedure	30
I.4	Test report	31
Annex J (normative) Deformation under crushing test (semi-rigid fire-fighting hoses)		32
J.1	Test piece	32
J.2	Apparatus	32
J.3	Procedure	32
J.4	Test report	33
Annex K (normative) Bending and crush resistance test (semi-rigid fire-fighting hoses)		34
K.1	Test piece	34
K.2	Apparatus	34
K.3	Procedure	34
K.4	Test report	35
Annex L (normative) Test for fire-fighting hose assemblies		36
L.1	Test piece	36
L.2	Apparatus	36
L.3	Procedure	36
L.4	Test report	36
Annex M (normative) Pressure impulse test (fire-fighting suction hoses)		37
M.1	Test pieces	37
M.2	Apparatus	37
M.3	Test fluid	37
M.4	Conditioning	37
M.5	Procedure	37
M.6	Test report	37
Annex N (normative) Reinforcement fracture resistance test (type B hoses only) (fire-fighting suction hoses)		40
N.1	Test pieces	40
N.2	Apparatus	40
N.3	Conditioning	40
N.4	Procedure	40
N.5	Test report	42
Annex O (normative) Test for flexibility at ambient temperature (fire-fighting suction hoses)		43
O.1	Test piece	43
O.2	Apparatus	43
O.3	Procedure	43

O.4	Test report	43
Annex P (normative) Test for vacuum resistance with flexing (fire-fighting suction hoses)		45
P.1	Test piece	45
P.2	Apparatus	45
P.3	Procedure	45
P.4	Test report	45
Annex Q (normative) Test for resistance to kinking (lay-flat fire-fighting hoses)		46
Q.1	Test piece	46
Q.2	Apparatus	46
Q.3	Procedure	47
Q.4	Test report	47
Annex R (informative) Test methods from other EN and ISO standards		48
Bibliography		49