ISO 6182-18:2025-08 (E)

Fire protection - Automatic sprinkler system - Part 18: Requirements and test methods for flexible sprinkler hose

Contents

Page

Foreword v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Product consistency 3

5 Requirements 3
5.1 Nominal sizes 3
5.2 Rated working pressure 3
5.3 Dimensions 3
5.3.1 Flexible hose length 3
5.3.2 Inlet fitting 3
5.3.3 Outlet fitting 3
5.3.4 End connections 3
5.3.5 Minimum inside diameter 3
5.4 Materials 4
5.5 Tolerance 5
5.6 Performance 5
5.6.1 Dimensional examination 5
5.6.2 Change of length 5
5.6.3 Leakage 5
5.6.4 Hydrostatic strength 5
5.6.5 Vacuum 5
5.6.6 Pressure cycling 5
5.6.7 U-bend fatigue 6
5.6.8 Arc bend fatigue 6
5.6.9 Anchoring components mechanical strength 6
5.6.10 Vibration 6
5.6.11 High pressure flow 6
5.6.12 Pressure loss (equivalent length determination) 6
5.6.13 High temperature exposure 6
5.6.14 Low temperature exposure 6
5.6.15 Salt spray corrosion 7
5.6.16 Moist ammonia air stress cracking 7
5.6.17 Stress corrosion cracking 7
5.6.18 Metallic coating thickness 7

6 Test methods 7
6.1 Dimensional examination test 7
6.2 Change of length test 7
6.3 Leakage test 7
6.4 Hydrostatic strength test 8
6.5 Vacuum test 8
6.6 Pressure cycling test 8
6.6.1 Test option 1 8
6.6.2 Test option 2 8
6.7 U-bend fatigue test 9

6.8 Arc bend fatigue test 9
6.9 Anchoring components mechanical strength test 10
6.10 Vibration test 10
6.11 High pressure flow test 12
6.12 Pressure/Friction loss test 12
6.13 High temperature exposure test 13
6.14 Low temperature exposure test 13
6.15 Salt spray corrosion test 13

6.16 Moist ammonia air stress cracking test 14
6.17 Stress corrosion cracking test 14
6.18 Metallic coating thickness test 15
6.18.1 General 15
6.18.2 Gravimetric determination of the mass per area 15
6.18.3 Measurement of coating thickness by X-ray spectrometry 15
6.18.4 Magnetic determination of coating thickness 15
6.18.5 Other methods 15

7 Markings 15

8 Manufacturer's installation instructions 16

9 Manufacturer's quality control testing and requirements 16

Annex A (normative) Tolerances 17

Bibliography 18