

DIN EN 15276-1:2019-06 (E)

Fixed firefighting systems - Condensed aerosol extinguishing systems - Part 1: Requirements and test methods for components

| Contents | | Page |
|-------------------------|---|-------------|
| European foreword | | 4 |
| Introduction | | 5 |
| 1 | Scope | 6 |
| 2 | Normative references | 6 |
| 3 | Terms and definitions | 6 |
| 4 | Component requirements | 8 |
| 4.1 | Condensed aerosol generator | 8 |
| 4.2 | Solid aerosol forming compound | 9 |
| 4.3 | Cooling mechanism | 9 |
| 4.4 | Activation device | 9 |
| 4.4.1 | General | 9 |
| 4.4.2 | Electrical activation device | 9 |
| 4.4.3 | Thermal activation device | 9 |
| 4.4.4 | Other methods of activation device | 9 |
| 4.5 | End plate and housing | 9 |
| 4.6 | Extinguishants | 9 |
| 5 | Condensed aerosol generators requirements | 9 |
| 5.1 | General | 9 |
| 5.2 | Extinguishing density | 10 |
| 5.3 | Agent distribution | 10 |
| 5.4 | Discharge time | 10 |
| 5.5 | Ambient temperature and humidity operation ranges | 10 |
| 5.6 | Service life | 10 |
| 5.7 | Shelf life and storage conditions | 10 |
| 5.8 | Corrosion | 10 |
| 5.9 | Vibration | 10 |
| 5.10 | Mechanical Shock | 10 |
| 5.11 | Discharge temperature | 11 |
| 5.11.1 | General | 11 |
| 5.11.2 | Casing temperature | 11 |
| 5.11.3 | Aerosol flow temperature | 11 |
| 5.12 | Activation device | 11 |
| 5.12.1 | General | 11 |
| 5.12.2 | Electrical activation device | 11 |
| 5.12.3 | Thermal activation device | 11 |
| 5.13 | Function reliability | 11 |
| 5.14 | Open fire conditions | 11 |
| 5.15 | Accessories | 11 |
| 5.16 | Documentation | 12 |
| 6 | Marking | 12 |
| 7 | Test methods | 13 |
| 7.1 | Conditions | 13 |
| 7.2 | Samples | 13 |

| | | |
|--|--|-----------|
| 7.3 | Compliance | 14 |
| 7.4 | Extinguishing density determination | 14 |
| 7.5 | Coverage determination | 14 |
| 7.6 | Temperature and humidity operation range tests | 14 |
| 7.6.1 | General | 14 |
| 7.6.2 | Test procedure | 14 |
| 7.6.3 | Low temperature Test | 15 |
| 7.7 | Accelerated ageing test | 15 |
| 7.7.1 | General | 15 |
| 7.7.2 | Objective of test | 15 |
| 7.7.3 | Performance requirements | 15 |
| 7.7.4 | Test | 15 |
| 7.7.5 | Remark | 15 |
| 7.7.6 | Number of product under test | 15 |
| 7.7.7 | Remark | 15 |
| 7.8 | Corrosion test | 16 |
| 7.9 | Stress corrosion test | 16 |
| 7.10 | Vibration test | 16 |
| 7.11 | Drop test | 17 |
| 7.11.1 | Impact Surface | 17 |
| 7.11.2 | Procedure | 17 |
| 7.11.3 | Requirements | 17 |
| 7.12 | Aerosol flow temperature test | 17 |
| 7.13 | Activation performance test | 17 |
| 7.14 | Function test | 18 |
| 7.14.1 | Discharge time | 18 |
| 7.14.2 | Aerosol flow temperatures | 18 |
| 7.14.3 | Test procedure | 18 |
| 7.14.4 | Casing temperature test | 18 |
| 7.14.5 | Efficiency | 18 |
| 7.14.6 | Requirements | 19 |
| 7.15 | Fire Exposure Test | 19 |
| 7.15.1 | Object of the test | 19 |
| 7.15.2 | Test procedure | 19 |
| 7.15.3 | Requirements | 20 |
| Annex A (normative) Extinguishing density/coverage test procedure | | 21 |
| A.1 | General | 21 |
| A.2 | Principle | 21 |
| A.3 | Extinguishing system | 22 |
| A.4 | Extinguishing Density | 23 |
| A.5 | Aerosol generator distribution verification tests | 23 |
| A.6 | Extinguishing density tests | 30 |
| A.7 | Hold Time Test of the determination of the maximum leakage area/volume ratio | 47 |
| Bibliography | | 50 |