

DIN EN 14373:2025-04 (E)

Explosion suppression systems (includes Amendment :2025)

Contents		Page
European foreword		4
1 Scope.....		5
2 Normative references.....		5
3 Terms and definitions		6
4 Symbols and abbreviations (EN 14373)		9
5 Explosion suppression.....		10
5.1 Design.....		10
5.2 General function.....		10
5.3 Requirements for explosion suppression systems.....		11
6 Environmental aspects		15
6.1 General.....		15
6.2 Suppressant		15
6.3 Actuators and other components.....		15
7 Experimental testing of the efficacy of an explosion suppression system.....		16
7.1 Information to be submitted prior to testing		16
7.1.1 General.....		16
7.1.2 Intended use		16
7.1.3 Information on the parts of the suppression system.....		16
7.1.4 Calculation model		17
7.2 Testing		17
7.2.1 General requirements for test setup		17
7.2.2 Test program for non metallic dusts		17
7.2.3 Test program for metal dust.....		21
7.2.4 Test program for gas.....		21
7.2.5 Test program for hybrid mixtures of non metallic dust and gas		22
7.2.6 Test program for mist-air mixtures		22
7.3 Parameters to be measured.....		22
7.4 Test report.....		23
8 Instructions.....		24
8.1 General.....		24
8.2 Installation of cables.....		24
8.3 Assembling.....		25
8.3.1 General.....		25
8.3.2 Process information requirements.....		25
8.4 Commissioning		25
8.4.1 General.....		25
8.4.2 Instructions for hand-over		25
8.4.3 Commissioning report		25
8.5 Safety		26
8.6 Maintenance		26
9 Marking and packaging		26
9.1 General.....		26
9.2 Parts of the explosion suppression system		26
9.3 Explosion suppression system.....		28

Annex A (informative) Development of an explosion suppression calculation model	29
A.1 General	29
A.2 Extinction.....	29
A.3 Functional tests for model development	30
A.4 Model validation	31
Annex B (informative) Applications.....	32
B.1 General	32
B.2 Hazard definition.....	32
B.3 Typical process equipment.....	33
B.3.1 Spray dryers	33
B.3.1.1 Introduction	33
B.3.1.2 Definition of elements.....	33
B.3.1.3 Dust concentration.....	34
B.3.1.4 Protection concept	35
B.3.1.5 Isolation	35
B.3.1.6 Advanced inerting.....	35
B.3.1.7 Flame Duration.....	35
B.3.1.8 Interlocking	35
B.3.2 Clean volumes	35
B.3.3 Elevators	35
B.3.4 Elongated enclosures	36
B.3.5 Pipes	36
B.3.6 Occupied spaces	36
Annex C (informative) Extrapolation to larger volumes	38
Annex D (informative) Significant changes between this European Standard and EN 14373:2005	42
Annex ZA (informative) Relationship between this European Standard and the essential requirements of EU Directive 2014/34/EU aimed to be covered.....	44
Bibliography	46