

ISO 20338:2019 (E)

Oxygen reduction systems for fire prevention — Design, installation, planning and maintenance

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	System requirements
4.1	General
4.2	Personnel safety
4.3	Effectiveness and application
4.4	Alarm organization and emergency plan
5	Design
5.1	Qualification of the designer
5.2	Fire protection concept
5.3	Structural specifications for the protected area
5.4	Oxygen concentration
5.5	Oxygen reduction to prevent fire
5.6	Safety margins
5.7	Oxygen reduced air quantity
5.7.1	Continuous oxygen reduction
5.7.2	Emergency plan
5.7.3	Oxygen reduced air
5.7.3.1	System using containers
5.7.3.2	System using vaporizer
5.7.3.3	System using oxygen-reduced air production equipment
5.7.4	Fault signals
5.8	Technical areas
5.8.1	Technical area for control panel
5.8.2	Technical area for reduced oxygen air generation
6	Distribution pipework
6.1	Pipework
6.2	Pipe supports
6.3	Components in the pipework
7	Monitoring the oxygen concentration
8	Alarms and notifications
9	Control equipment
9.1	Function
9.2	Requirements
9.3	Electrical power supply
9.4	Electrical cabling installations
9.5	Data recording
10	System operation
10.1	Instruction and training of personnel

- 10.2 Inspections
- 10.3 Operations log
- 10.4 Further obligations
- 11 Maintenance
- 12 Documentation
- 13 Installation
 - 13.1 Qualification of the installer
 - 13.2 General specifications — Installation
- Annex A (normative) Ignition thresholds for oxygen reduction using nitrogen-enriched air in fire prevention
 - A.1 Ignition thresholds
 - A.2 Tests to ascertain ignition thresholds of unfamiliar materials
 - A.2.1 Cup burner tests
 - A.2.2 Ignition threshold tests
 - A.2.2.1 General
 - A.2.2.2 Test procedure
 - A.2.2.3 Test criteria
 - A.2.2.4 Test documentation

Page count: 24