# Portable fire extinguishers — Model laboratory — Report in compliance with EN 3-7

ICS 13.220.10



#### National foreword

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The UK participation in its preparation was entrusted to Technical Committee FSH/2, Fire extinguishers, which has the responsibility to:

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- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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#### **Cross-references**

The British Standards which implement international or European publications referred to in this document may be found in the  $BSI\ Catalogue$  under the section entitled "International Standards Correspondence Index", or by using the "Search" facility of the  $BSI\ Electronic\ Catalogue$  or of British Standards Online.

#### Summary of pages

This document comprises a front cover, an inside front cover, the CEN/TR title page, pages 2 to 19 and a back cover.

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# TECHNICAL REPORT

#### **CEN/TR 14922**

# RAPPORT TECHNIQUE

### TECHNISCHER BERICHT

December 2004

ICS 13.220.10

#### English version

# Portable fire extinguishers - Model laboratory - Report in compliance with EN 3-7

Extincteurs portatifs - Modèle pour laboratoire - Rapport selon EN 3-7

Tragbare Feuerlöscher - Musterprüfbericht in Verbindung mit EN 3-7

This Technical Report was approved by CEN on 5 August 2004. It has been drawn up by the Technical Committee CEN/TC 70.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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#### **Foreword**

This document (CEN/TR 14922:2005) has been prepared by Technical Committee CEN/TC 70 " Manual means of fire fighting equipment", the secretariat of which is held by AFNOR.

This model of laboratory report is to be used by all laboratories performing EN 3-7 tests.

The standards which this CEN Report refers to are:

EN 3-7: 2004, Portable fire extinguishers — Part 7: Characteristics, performance requirements and test methods.

EN 615:1994, Fire protection — Fire extinguishing media — Specifications for powders (other than class D powders).

EN 1568-1:2000, Fire extinguishing media — Foam concentrates — Part 1: Specification for medium expansion foam concentrates for surface application to water-immiscible liquids.

EN 1568-2: 2000, Fire extinguishing media — Foam concentrates — Part 2: Specification for high expansion foam concentrates for surface application to water-immiscible liquids.

EN 1568-3: 2000, Fire extinguishing media — Foam concentrates — Part 3: Specification for low expansion foam concentrates for surface application to water-immiscible liquids.

EN 1568-4:2000, Fire extinguishing media — Foam concentrates — Part 4: Specification for low expansion foam concentrates for surface application to water-miscible liquids.

# This is a laboratory tests report and not a product certification approval.

#### MODEL LABORATORY REPORT

(Information contained on these two pages of the report shall be considered as the minimum list of details required in the introduction)

•	Identification and Address
	of the Laboratory
	+ EN ISO/IEC 17025 accreditation,
	Logo and number of accreditation's body

Date of Issue of the report

#### LABORATORY TEST REPORT

Report nr	:									
Requested by	:									

#### PORTABLE FIRE EXTINGUISHER

# Tests for compliance with EN 3-7:2004

#### • Identification of extinguisher:

-	Type: (manufacturer's designation of the model)according to general drawing
	nr:
•	Manufacturer (identification, address, etc):
-	Type and commercial name of extinguishing medium (or media):

- Nominal charge of extinguisher:
- Pressurisation (Method, type, gas, mass or pressure): .....

#### • Conclusion of the tests:

Compliance of submitted samples with all applicable clauses of the standard: YES / NO. (details: see summary (taking model variants into consideration where relevant))

- Operating temperature range: from ..... °C to ..... ° C
- Dielectric suitability (applicable only for water based extinguisher): ......
- Fire class(es) intended for: .....
- Fire ratings achieved: .....

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#### • Supplementary information:

<ul><li>Sample</li></ul>	ples
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*Quantity of provided samples	
*Receipt of the samples by the lab – date	

#### • Conformity to documentation

The extinguishers submitted can be identified from the detailed documentation supplied by the manufacturer comprising:

- \* Annex 1: Conformity of the extinguishing media to the technical data provided by the manufacturer
- \* Annex 2: list of documents included in this tests report. (the minimum documents to identifies the fire extinguisher)
- \* Annex 3 (if relevant): list of documents not included in this tests report, but registered by the laboratory.

* PED references:	Certificate's nr;
	Notified Body's nr,

#### Report

- \* This report comprises ..... pages, annexes A1 and ..... annexes.
- \*Only the materials detailed in this report have been subjected to tests.
- \*The summary and conclusions of checks and tests are given on page .....
- \* This report or any part of it may not be reproduced without the written permission of the laboratory.

Laboratory stamp

Signature and position of the person or persons responsible of the laboratory

# This is a laboratory tests report and not a product certification approval.

#### Table 1 - SUMMARY OF CHECKS AND TESTS

Item nr EN 3 Clause		Title	Applicable Yes / No	Comp Yes	npliance No	
1	4.2	Control of discharge	165/100	1 65	NO	
2	4.2	Operating position				
3	4.4	Hose assembly				
4	4.4	Propellants				
5	4.6	Means of checking pressure for stored pressure extinguishers				
6	6.1	Nominal charges				
<u> </u>	6.2	Filling tolerances				
8	6.3	Design of filling opening				
9	7.1.1	Duration of operation, minimum duration				
10	7.1.1	Duration of operation, spread of measurements				
11	7.1.2	Residual charge				
12	7.3	Commencement of discharge				
13	7.4	Temperature cycling				
14	8.1	Retention of propellant				
15	8.2	Leakage acceptance level				
16	9.2	Dielectric test, for water based extinguishers				
17	10.1	General requirement for use of extinguishers				
18a	10.1	Operating force for CO2 extinguishers				
18b	10.2	Operating force for other extinguishers				
19	10.2	Safety devices				
20	10.3	Filter for water based extinguishers				
20 21a	10.4					
21a 21b	10.5	Hose and coupling systems, for CO2 extinguishers				
210 22a		Hose and coupling systems, for other extinguishers				
22a 22b	10.6	Control valve, for CO2 extinguishers				
	10.6	Control valve, for 1 and 2 kg powder extinguiushers				
22c 23	10.6 11.1.1	Control valve, for other extinguishers				
		Pressure gauge				
24	11.1.2	Pressure gauge scale				
25 26	11.1.3	Pressure gauge error after cycling				
26	11.1.4	Compability of pressure gauge materials				
		Pressure indicator				
28	12.1	Horn / hose for CO2 extinguishers				
29	12.2	Horn resistance to static load				
30	12.3	Security of horn / hose fixing				
31	12.4	Horn resistance to temperature				
32	13	Mounting bracket				
33	14.1	Resistance to external corrosion				
34	14.2	Resistance to internal corrosion				
35	15.2	Class A fire rating				
36	15.3	Class B fire rating				
37	16.1	Extinguisher identification, colour				

#### Model of laboratory test report according to EN 3-7:2004

1) Control of discharge (EN 3–7:2004, 4.2)						
	`	1				
Provision of device to interrupt discharge (yes/no	0)					
Self closing device (yes/no)						
Compliance to 4.2 (yes/no)						
2) Operating position (EN 3–7:2004, 4.3)						
Operation without inversion (yes/no)						
Operating device location conform to requiremen						
Compliance to 4.3 (yes/no)						
3) Hose assembly (EN 3-7, 4.4)						
Nominal weight (kg)/ volume of agent (l)						
Requirement for hose (yes/no)						
Length of actual flexible hose fitted (mm)						
Required length (mm) $\geq 400 / \geq 250$						
Compliance to 4.4 (yes/no)						
Type of propellant (to be checked by documentation Tracer Compliance to 4.5 (yes/no)  5) Means of checking pressure for stored pressure ex  Means for pressure check available (yes/no/not appressure check available (yes/no))	tinguishers (EN	3-7:				
			A – Pressure gauge B – Pressure indicator C – Pressure connection □			
Compliance to 4.6 (yes/no)						
6) Nominal charges (EN 3–7:2004, 6.1)						
Nominal charge (kg/l)						
Compliance to 6.1 (yes/no)						
7) Filling tolerances (EN 3–7:2004, 6 2)						
Sample	1		2	3	4	
Actual (kg/l)						
Deviation from nominal (%)						
Maximum allowed tolerance (%)						
Compliance to 6.2 (yes/no)						

#### 8) Design of filling opening (EN 3-7:2004, 6.3)

Provision to vent pressure (yes/no)	
Pressure released within 1/3 of disassembly (yes/no)	
Diameter of actual filling opening (mm)	
Required minimum diameter 20 mm ≤ 3 kg or 3 1 < 25 mm	
Compliance to 6.3 (yes/no)	

#### 9) Duration of operation, minimum duration (EN 3–7:2004, 7.1.1)

Sample	1	2	3
Measured duration (s)			
Required duration (s)		≥	
Compliance to 7.1.1 (yes/no)			

#### 10) Duration of operation, spread of measurements (EN 3-7:2004, 7.1.2)

Deviation of measured time from average dischar	ge duration:		
Average discharge duration (s)			
Sample	1	2	3
Actual deviation (%)			
Required deviation (%)		≤±15	
Compliance to 7.1.2 (yes/no)			

#### 11) Residual charge (EN 3-7:2004, 7.2)

Residue as a percentage of the nominal charge:			
Sample	1	2	3
Actual (%)			
Required (%)		≤ 10	
Compliance to 7.2 (yes/no)			

#### 12) Commencement of discharge (EN 3-7:2004, 7.3)

Sample	1	2	3
Measured (s)			
Required (s)		≤ 4	
Compliance to 7.3 (yes/no)			

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#### 13) Temperature cycling (EN 3-7, 7.4)

Temperature cycling	Сус	le A	Сус	ele B
Sample	1	2	3	4
Temperature at start of cycle (°C)	$T_{min}$ :	$T_{min}$ :	$T_{max}$ :	$T_{max}$ :
Temperature at end of cycle (°C)	$T_{max}$ :	$T_{max}$ :	$T_{\min}$ :	$T_{min}$ :
Commencement of discharge Actual (s)				
Commencement of discharge Required (s)		≤	10	
Maximum duration of operation Actual (s) 1				
Maximum duration of operation Required (s) 1				
Minimum duration of operation Actual (s)				
Minimum duration of operation Required (s)		≥	6	
Max. duration of operation for CO2 Actual (s)				
Max. duration of operation for CO2 Required (s)	≤ 2,5 times the average value at 20°C		0°C	
Residual charge Actual (%)				
Residual charge Required (%)		≤ (	(2)	
Compliance to 7.4 (yes/no)				

<sup>(1)</sup>The maximum duration of operation shall be not more than twice the value established at a temperature of 20°C. for all extinguishers except for CO2

#### 14) Retention of propellant (EN 3-7:2004, 8.1)

Verification possible (yes/no)	
Verification method (by weighing / by pressure)	
Verification device (connection / gauge / indicator)	
Compliance to 8.1 (yes/no)	

#### 15) Leakage acceptance level (EN 3-7:2004, 8.2)

Sample	1	2
Actual leakage % (1)		
Required rate of leakage $\leq 6 \%$ / year (1)		
Actual leakage % (2)		
Required rate of leakage ≤5 % weight / year (2)		
Compliance to 8.2 (yes/no)		

<sup>(1)</sup> For stored pressure extinguishers, % of the expanded free gas volume at 20 °C.

#### 16) Dielectric test, for water based extinguishers (EN 3–7:2004, 9.2)

Actual current at 35 kV (mA)	
Required current at 35 kV (mA)	≤ 0,5 mA
Compliance to 9.2 (yes/no)	

#### 17) General requirement for use of extinguishers (EN 3–7:2004, 10.1)

Capable to use extinguisher without mounting, removal or modifying of any	
component except for the safety device (yes/no)	
Compliance to 10.1 (yes/no)	

<sup>(2)</sup> Maximum 15% for BC powder, maximum 10% for all other agents.

<sup>(2)</sup> For cartridge operated and CO2 extinguishers % of the nominal charge.

#### 18a) Operating force for CO2 extinguishers (EN 3–7:2004, 10.2)

Activation without repetition of action (yes/no)		
Force to activate the extinguisher at 40°C:		
Sample	1	2
Actual (N)		
Required (N)	≤ 200	
Force to activate the extinguisher at $T_{max}$ :		
Sample	1	2
Actual (N)		
Required (N)	≤	300
Compliance to 10.2 (yes/no)		

#### 18b) Operating force for other extinguishers (EN 3–7:2004, 10.2)

Activation without repetition of action (yes/no)		
Force to activate the extinguisher:		
Sample	1	2
Actual force to activate finger trigger (N)		
Required force to activate finger trigger (N)	≤ 1	100
Actual force to squeeze grip lever (N)		
Required force to squeeze grip lever (N)	≤2	200
Actual force to screw down hand wheel (N) (1)		
Required force to screw down hand wheel (N) (1)	≤ 1	100
Actual energy to strike knob (J)		
Required energy to strike knob (J)	≤	2
Compliance to 10.2 (yes/no)		

#### (1) Measured at outside of the wheel.

Maximum of 360° rotation to full open position.

#### 19) Safety devices (EN 3-7:2004,10.3)

Release of safety device distinct from operating mechanisms	anism (yes/no)	
Removal of safety device can be seen (yes/no)		
Force to release safety device:		
Sample	1	2
Actual (N)		
Required (N)	≥ 20 ≤ 100	
Attempt to initiate discharge without release of safety device:		
Sample	1	2
Deformation or damage of operating mechanism in		
case of double force ( yes/no )		
Compliance to 10.3 (yes/no)		·

#### 20) Filter for water based extinguishers (EN 3–7:2004, 10.4)

Filter position upstream of smallest orifice (yes/no)	
Area of each filter orifice smaller than smallest area of the discharge passage (yes/no)	
Area of smallest orifice in discharge passage (mm <sup>2</sup> )	
Total area of filter orifices (mm <sup>2</sup> )	
Total filter area 8 times larger than smallest orifice area (yes/no)	
Filter accessible for maintenance (yes/no)	
Compliance to 10.4 (yes/no)	

21a) Hose and coupling systems, for CO2 extinguishers (EN 3–7:2004, 10.5)

Functional throughout operating temperature	range (yes/no)
Suitable design to prevent hose damage ( yes/no )	
Burst pressures (bar) at $T_{min}$ , 20 °C and $T_{max}$	(°C):
Actual test temperature sample 1	
Required test temperature	20±5°C
Actual burst pressure sample 1	
Required burst pressure $\geq 1.5 \text{ x P}(T_{\text{max}})$	
Actual test temperature sample 2	
Required test temperature T <sub>max</sub>	
Actual burst pressure sample 2	
Required burst pressure $\geq 1,25 \text{ x P}(T_{\text{max}})$	
Actual test temperature sample 3	
Required test temperature T <sub>max</sub>	
Actual burst pressure sample 3	
Required burst pressure $\geq 1,25 \times P(T_{max})$	
Actual test temperature sample 4	
Required test temperature T <sub>min</sub>	
Actual burst pressure sample 4	
Required burst pressure $\geq 1,25 \times P(T_{max})$	
Actual test temperature sample 5	
Required test temperature T <sub>min</sub>	
Actual burst pressure sample 5	
Required burst pressure $\geq 1,25 \text{ x P}(T_{\text{max}})$	
Compliance to 10.5 (yes/no)	

21b) Hose and coupling systems, for other extinguishers (EN 3–7:2004, 10.5)

Functional throughout operating temperature	range ( yes/no )
Suitable design to prevent hose damage (yes	
Burst pressures ( bar ) at $T_{min}$ , 20 °C and $T_{max}$	(°C):
Actual test temperature sample 1	
Required test temperature	20±5°C
Actual burst pressure sample 1	
Required burst pressure $\geq 3 \times P(T_{max})$	
Actual test temperature sample 2	
Required test temperature T <sub>max</sub>	
Actual burst pressure sample 2	
Required burst pressure $\geq 2 \times P(T_{max})$	
Actual test temperature sample 3	
Required test temperature T <sub>max</sub>	
Actual burst pressure sample 3	
Required burst pressure $\geq 2 \times P(T_{max})$	
Actual test temperature sample 4	
Required test temperature T <sub>min</sub>	
Actual burst pressure sample 4	
Required burst pressure $\geq 2 \times P(T_{max})$	
Actual test temperature sample 5	
Required test temperature T <sub>min</sub>	
Actual burst pressure sample 5	
Required burst pressure $\geq 2 \times P(T_{max})$	
Compliance to 10.5 (yes/no)	

#### 22a) Control valve, for CO<sub>2</sub> extinguishers (EN 3–7:2004, 10.6.1 and 10.6.4)

Equipped with self-closing discharge valve (yes / no)		
Sample	1	2
Initial mass before discharge (kg)		
Remaining mass A measured within 10 s of completion of partial discharge (kg)		
Remaining mass B discharge measured after 5 min of completion of partial discharge (kg)		
Actual ratio remaining mass B / remaining mass A (%)		
Required ratio remaining mass B / remaining mass A (%)	≥	80
Compliance to 10.6 (yes/no)		

#### 22b) Control valve, for 1 and 2 kg powder extinguishers (EN 3–7:2004, 10.6.1 and 10.6.3)

Equipped with self-closing discharge valve (yes/no)		
Sample	1	2
Remaining pressure A measured within 10 s of completion of partial		
discharge (bar)		
Remaining pressure B measured after 2 min of completion of partial		
discharge (bar)		
Actual ratio remaining pressure B / remaining pressure A (%)		
Required ratio remaining pressure B / remaining pressure A (%)	≥	80
Compliance to 10.6 (yes/no)		

#### 22c) Control valve, for other extinguishers (EN 3–7:2004, 10.6.1 and 10.6.2)

Equipped with self-closing discharge valve (yes/no)		
Sample	1	2
Initial pressure A before discharge (bar)		
Remaining pressure B measured within 10 seconds of completion of partial		
discharge (bar)		
Remaining pressure C measured after 5 min of completion of partial		
discharge (bar)		
Actual ratio pressures C / A (%)		
Required ratio pressures C / A (%)	≥	50
Actual ratio pressures C / B (%)		
Required ratio pressures C / B (%)	≥	80
Compliance to 10.6 (yes/no)		

#### 23) Pressure gauge (EN 3-7:2004, 11.1.1)

Pressure gauge present (yes/no)	
Capable of being checked on good working order with an external pressure	
(yes/no/not applicable)	
Compliance to 11.1.1 (yes/no/not applicable)	

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#### 24) Pressure gauge scale (EN 3-7:2004, 11.1.2)

Scale calibrated in bars (yes/no)	
Zero zone (yes/no)	
End stop on zero zone (yes/no)	
End stop at lowest pressure side of the zero zone (yes/no)	
Pointer contact end stop (yes/no)	
Green zone between operating pressures (yes/no)	
Tolerance of –15 % for pressure at T <sub>min</sub> (yes/no)	
Tolerance of +6 % for pressure at $T_{max}$ (yes/no)	
Pressures rounded off to full or half bar (yes/no)	
Side zones of green zone coloured red (yes/no)	
Operating pressure at +20° indicated (yes/no)	
Scale length ≥1,5 x length from zero to the high pressure end of the green zone (yes/no)	
Pointer radially into the green zone with length of between 50 % and 80 % of the green	
zone height (yes/no )	
Position of pointer clearly visible at ends of green zone and at operating pressure at 20 °C	
(yes/no)	
Compliance to 11.1.2 (yes/no/not applicable)	

#### 25) Pressure gauge error after cycling (EN 3–7:2004, 11.1.3)

	Initial		After 1000 cycles			
Sample	1	2	3	1	2	3
Beginning of green zone (bar)						
Error ≤ 1 bar (yes/no)						
End of green zone (bar)						
Error $\leq \pm 6\%$ (yes / no)						
Operating pressure at 20 °C (bar)						
Error $\leq \pm 0.5$ bar (yes/no)						
Compliance to 11.1.3 (yes/no/not applicable)						

#### 26) Compatibility of pressure gauge materials (EN 3-7:2004,11.1.4)

	Gauge materials compatible with the extinguishing medium and propellant (yes/no)	
(	Compliance to 11.1.4 (yes/no/not applicable)	

#### 27) Pressure indicator (EN -7:2004, 11.2)

Pressure indicator present (yes/no)		
Sample	1	2
Scale provided with indications for $P(T_{min})$ and $P(T_{max})$ (yes / no)		
Measured pressure at $P(T_{min})$ indication (bar)		
Required P(T <sub>min</sub> ) (bar)		
Required error in indication $\leq 1$ bar; indication P(Tmin) acceptable (yes / no)		
Measured pressure at $P(T_{max})$ indication (bar)		
Required $P(T_{max})$ (bar)		
Required error in indication $\leq 1$ bar; indication P(Tmax) acceptable (yes / no)		
Compliance to 11.2 (yes/no/not applicable)		·

#### 28) Horn / Hose for CO2 extinguishers (EN 3-7:2004, 12.1)

Horn provided with a handle (yes / no)	
Compliance to 12.1 (yes/no)	

#### 29) Horn resistance to static load (EN 3-7:2004, 12.2)

Visible damage after static load test (yes / no)	
Diameter of the horn before static load test (mm)	
Diameter of the horn after static load test (mm)	
Actual ratio of horn diameter before/after static load test (%)	
Required ratio of horn diameter before/after static load test (%)	<u>≤</u> 10
Compliance to 12.2 (yes/no)	

#### 30) Security of Horn / Hose fixing (EN 3-7:2004, 12.3)

Method of locking	Mechanical	Adhesive
Actual torque to loosen hose / horn assembly (Nm)		
Required torque to loosen assembly (Nm)	≥ 20	≥ 10
Compliance to 12.3 (yes/no)		

#### 31) Horn resistance to temperature (EN 3-7:2004, 12.4)

Sample	1	2
Diameter of the horn at ambient temperature and discharge (mm)		
Diameter of the horn after raising temperature to Tmax and discharge (mm)		
Actual ratio of horn diameter before/after the test (%)		
Required ratio of horn diameter before/after the test (%)	≤ 1	10
Visible damage after temperature/ discharge test (yes / no)		
Compliance to 12.4 (yes/no)		

#### 32) Mounting bracket (EN 3-7:2004, Clause 13)

Easy removal extinguisher from bracket (yes/no)	
Method of removal is obvious (yes/no)	
Capable of supporting twice the total mass of extinguisher without permanent	
deformation (yes / no)	
Compliance to Clause 13 (yes/no)	

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## CEN/TR 14922:2005 (E)

33) Resistance to external corrosion (EN 3–7:2004, 14.1)

Observations after the salt spray test as per H.1 of Annex H: Sample	1	2
Operating force for CO2 extinguishers – 10.2 (yes/n.a.)	1	
Actual (N)		
Required (N)	< '	200
Operating force for other extinguishers – 10.2 (yes/n.a.)		200
Actual force to activate finger trigger (N)		
Required force to activate finger trigger (N)		100
Actual force to squeeze grip lever (N)		100
Required force to squeeze grip lever (N)	< '	200
Actual force to screw down hand wheel (N)	= 4	
Required force to screw down hand wheel (N)	<	100
Actual energy to strike knob (J)		
Required energy to strike knob (J)	<	2
Force to release safety device – 10.3:		
Actual (N)		
Required (N)	20 ≤	£ 100
Duration of operation – 7.1.2:		
Measured (s)		
Average duration, see item 10 (s)		
Actual deviation from the average duration time (%)		
Required deviation from the average duration time (%)	≤	25
Return of pressure gauge to indication of no pressure (yes/no/n.a.)		
Burst pressure hose – 10.5 CO2 extinguishers (yes/n.a.)		
Actual burst pressure		
Required burst pressure $\geq 1.5 \text{ x P}(T_{\text{max}})$		
Burst pressure hose – 10.5 other extinguishers (yes/n.a.)		
Actual burst pressure		
Required burst pressure $\geq 3 \times P(T_{max})$		
Corrosion of metal likely to impair the operation or		
safety (yes/no)		

#### 34) Resistance to internal corrosion (EN 3-7:2004, 14.2)

Observations after 8 times temperature cycle as per H.2 of	Annex H:	
Sample	1	2
Evidence of corrosion (yes/no)		
Detachment of coating (yes/no)		
Cracking of coating (yes/no)		
Bubbling of coating (yes/no)		
Change of agent colour (1) (yes/no)		
Compliance to 14.2 (yes/no)		

<sup>(1)</sup> Except for change resulting from the thermal cycling.

#### 35) Class A fire rating (EN 3–7:2004, 15.2)

Test No	1	2	3
Fire size			
Moisture of test fire wood: measured average (%)			
Required (%)	10 to 15		
Actual ambient temperature within test room (°C)			
Required temperature within test room (°C)	0 to 30		
Fire extinguished: (yes / no)			
Measured time to extinguish fire (min-s)			
Required $\leq 5$ min for $\leq 21$ A; $\leq 7$ min for $\geq 27$ A			
Achieved test fire rating – Class A			
Minimum required test fire rating – Class A (1)	A		
Compliance to 15.2 (yes/no)			

<sup>(1)</sup> As per table 3 or 4 of 6.4.2

#### 36) Class B fire rating (EN 3-7:2004, 15.3)

Test No	1	2	3
Fire size			
Actual ambient temperature (°C)			
Required ambient temperature (°C)	0 to 30		
Actual wind speed (m / s)			
Accepted wind speed (m / s)		<u>≤</u> 3	
Fire extinguished: (yes / no)			
Heptane left after extinction (yes/no)			
Measured (mm)			
Required (mm)		<u>≥</u> 5	
Achieved test fire rating – Class B			
Minimum required test fire rating – Class B (1)	В		·
Compliance to 15.3 (yes/no)			

<sup>(1)</sup> As per table 5, 6, 7 or 8 of 6.4.3

#### 37) Extinguisher identification, colour (EN 3-7, 16.1)

Colour of extinguisher body red RAL 3000 (yes/no)	
Colour coded for extinguishant (yes/no)	
Coded area ≤ 10 % of body surface area (yes/no/n.a.)	
National regulation for colour code extinguishant applicable (yes/no)	
Compliance to 16.1 (yes/no)	

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## Annex 1

#### Powder to be tested in accordance to EN 615

Charact	eristics		Manufacturer specification	Samp	le Measurement	Within specification yes/no
Commercial name						
Chemical Compositi	on (Clause 7)					
	Chemical name	%	Method	%	Method	
1 <sup>st</sup> component						
2 <sup>nd</sup> component						
3 <sup>rd</sup> component						
4 th component						
Particle distribution	(Clause 6)					
Method						
$>125 \mu m (\%) \pm 5$						
$>63 \mu m (\%) \pm 8$						
$>40 \ \mu m \ (\%) \pm 8$						
Colour						
Compliance according	Compliance according to Manufacturer's specification ( yes/no )					

#### Water based extinguishing agents to be tested in accordance to EN 1568

Note: fill one table to each component as defined on the label and/or the filling instructions (excluding water) and one table for the extinguishing media ready to use.

First component

Characteristics	Manufacturer Specification	Sample Measurement	Within specification yes/no	
Commercial name				
Density in kg/dm <sup>3</sup> at 20 °C $\pm$ 2 °C				
Viscosity in mm <sup>2</sup> /s at 20 °C $\pm$ 2 °C				
Refractive index at 20 °C ± 2 °C				
$N_D 20$				
pH at 20 °C ± 2 °C				
Compliance according to Manufacturer's specification (yes/no)				
An infrared great great party great by the laboratory shall be included in the decommentation for future				

An infrared spectrogram performed by the laboratory, shall be included in the documentation for future comparison.

#### Second component

Characteristics	Manufacturer Specification	Sample Measurement	Within specification yes/no	
Commercial name				
Density in kg/dm <sup>3</sup> at 20 °C ± 2 °C				
Viscosity in mm <sup>2</sup> /s at 20 °C $\pm$ 2 °C				
Refractive index at 20 °C ± 2 °C				
$N_D 20$				
pH at 20 °C ± 2 °C				
Compliance according to Manufacturer's specification (yes/no)				
A . i. C d				

An infrared spectrogram performed by the laboratory, shall be included in the documentation for future comparison.

Third component (if any)....

Extinguishing media

Characteristics	Manufacturer Specification (*)	Sample Measurement	Within specification yes/no	
Commercial name (if specified)				
Density in kg/dm <sup>3</sup> at 20 °C ± 2 °C				
Viscosity in mm <sup>2</sup> /s at 20 °C ± 2 °C				
Refractive index at 20 °C ± 2 °C				
$N_D 20$				
pH at 20 °C ± 2 °C				
Compliance according to Manufacturer's	specification (yes/no)			
An infrared spectrogram performed by the laboratory, shall be included in the documentation for future				
comparison.				

(\*) If the manufacturer supplied the specifications of all the components, he has not to supply the Extinguishing media specification. It will be the laboratory to perform the measurement using a sample prepared by itself using the same formula of the manufacturer.

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# Annex 2

List of documents included in this test report.

# Annex 3

List of documents non-included in this report, but registered by the laboratory (if relevant).

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