

Unified tests procedures for the tests of EN 3-7

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National foreword

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English Version

Unified tests procedures for the tests of EN 3-7

Modes opératoires unifiés pour les essais de l'EN 3-7

Vereinheitlichte Prüfverfahren für die Prüfungen nach EN 3-7

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Foreword

This document (CEN/TR 15642:2008) has been prepared by Technical Committee CEN/TC 70 “Manual means of fire fighting equipment”, the secretariat of which is held by AFNOR.

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Part 1 – Compaction procedure

1 General

This procedure describes the method to perform the COMPACTION when required.

2 Scope

This procedure is applicable to:

2.1 The powder extinguishers for testing, before the 24 h storage period at $(20 \pm 5)^\circ\text{C}$ prior to the following tests:

- the duration of operation tests;
- the control valve tests;
- the fire performance tests.

2.2 The water based extinguishers for testing, before the 24 h storage period at $(20 \pm 5)^\circ\text{C}$ prior to:

- the duration of operation tests.

3 Normative references

EN 3-7:2004 (Clause 5 and Annex K), *Portable fire extinguishers - Part 7: Characteristics, performance requirements and test methods*

4 Equipment

Apparatus:

The compaction machine shall be designed to accept only one extinguisher at a time, which shall be raised by a rod and guided by castors. The plate supporting the extinguisher shall be steel, (300 ± 5) mm square and (60 ± 1) mm thick. Compaction machine shall be mounted to prevent movement and absorption of energy due to the impact.

The compaction machine shall conform to the following:

- the rod shall be adjustable to adjust to the extinguisher base;
- the rod shall be able to move freely;
- the extinguisher shall be guided without constraint in the guide castors;
- the impact shall take place on the steel plate and not on the rod;
- the cam to be used is shown in Figure K.1 of EN 3-7:2004. and shall rotate at uniform angular speed;
- equipped with a counter, which automatically stops at 500 cycles.

The measurement equipment shall fulfil the applicable requirements of EN ISO/IEC 17025 regarding calibration and accuracy.

5 Tests conditions – Number of tests samples

- Compaction procedure is carried out at ambient temperature $(20 \pm 5)^\circ\text{C}$.
- Number of test samples:
 - 3 specimens of powder extinguishers for the duration of operation tests;
 - 2 specimens of powder extinguishers for the control valve tests;
 - all specimens of powder extinguishers for the fire performance tests;
 - 3 specimens of water based extinguishers for the duration of operation tests.

6 Test method

Procedure:

The extinguisher, in the condition in which it is used, and conditioned $(20 \pm 5)^\circ\text{C}$ shall be subjected to the compaction procedure.

The extinguisher shall be held in the vertical position in the compaction machine and dropped vertically 500 times, from a height of (15 ± 1) mm, at a frequency of $1 \text{ Hz} \pm 10 \%$, onto the rigid horizontal steel plate.

The extinguisher shall not be shaken nor inverted after the compaction and prior to the test.

7 Requirements – Acceptance criteria

The compaction procedure is a pre-conditioning procedure. The requirements are specified in the subsequent tests (see SCOPE in clause 2 above).

Personal from the laboratory shall take care that the operability of the extinguisher is not affected by the compaction. If operability of the extinguisher is affected this shall be reported.