

# DIN 4102-16:2021-01 (E)

## Fire behaviour of building materials and building components - Part 16: "Brandschacht" tests

---

Contents	Page
Foreword .....	4
1 Scope .....	6
2 Normative references .....	6
3 Terms and definitions.....	7
4 Brief description of method.....	7
5 Specimen preparation .....	7
5.1 General .....	7
5.2 Colour variations.....	7
5.3 Finishes (paints, coatings, wallcoverings, etc.).....	8
5.4 Adjacent materials.....	8
5.5 Bonding agents.....	9
6 Number and size of specimens and test pieces.....	9
6.1 General .....	9
6.2 Reducing the scope of testing of <i>Brandschacht</i> tests .....	11
6.3 Number of tests for materials of various apparent densities and thicknesses .....	11
7 Conditioning and ageing of specimens .....	12
7.1 Conditioning of specimens .....	12
7.2 Conditioning to determine ageing behaviour .....	12
7.3 Ageing of plastic drainage pipes and fittings.....	13
8 Requirements for specific materials.....	14
8.1 Internal wall and ceiling linings applied using adhesives .....	14
8.2 Wood chipboard .....	14
8.3 Other types of covering .....	15
8.3.1 High-pressure laminates (HPL) or continuous pressure laminates (CPL) (laminated sheet) used to cover wood chipboard.....	15
8.3.2 Other coverings on substrates not covered by this standard .....	15
8.4 Back-ventilated cladding.....	16
8.5 Thermal insulation composite systems .....	16
8.6 Mineral fibre insulating materials, with or without metal facing .....	16
8.7 Rigid polystyrene foam boards.....	16
8.8 Rigid polystyrene foam composite panels .....	17
8.9 Adhesives for use with rigid polystyrene foam board .....	17
8.10 Sandwich panels .....	17
8.11 Loose or granular insulating materials.....	17
8.12 In-situ foam .....	18
8.13 Intumescent coatings and coatings for wood and wood-based panel products .....	18
8.13.1 Specimen materials .....	18
8.13.2 Surface treatment .....	19
8.14 Solid timber with fire retardants applied by the vacuum/pressure process .....	19
8.15 Textiles .....	19
8.16 Fire retardants for textiles.....	19
8.16.1 General .....	19

8.16.2	Test fabrics .....	20
8.16.3	Fire behaviour after washing .....	20
8.16.4	Fire behaviour after dry cleaning .....	20
8.16.5	Fire behaviour after exposure to natural weathering.....	20
8.16.6	Number of specimens.....	20
8.17	Pipes, pipe insulation, lagging, jacketing.....	21
8.17.1	Pipes .....	21
8.17.2	Pipe insulation (hinged or tubular, with or without jacketing applied at works) .....	22
8.17.3	Cladding for insulated pipes .....	22
8.18	Flexible ventilation ducting .....	23
8.19	Jointing products (at edges).....	23
8.19.1	General.....	23
8.19.2	Sealants.....	23
8.19.3	Compressible soft foam strips.....	23
8.20	Raised access floor panels .....	23
8.21	Roof underlays .....	24
8.22	Decorative elements.....	24
8.23	Cables and cable coatings .....	24
8.24	Plastic sheeting (hollow core, framework or multiwall sheeting, e.g. polycarbonate) .....	24
9	Testing .....	24
9.1	General.....	24
9.2	Exposure to flame.....	24
9.3	Distance of specimens to burner .....	25
9.4	Testing aged specimens .....	25
9.5	Testing weathered specimens.....	25
9.6	Termination of the test.....	25
10	Evaluation of test results .....	25
10.1	Determining residual length.....	25
10.2	Materials with a thickness of > 80 mm .....	26
10.3	Flaming droplets for DIN 4102-B1 materials .....	26
11	Test certificate.....	26

## Figures

Figure 1	— Pipe system for ageing tests .....	14
----------	--------------------------------------	----

## Tables

Table 1	— Number of specimens.....	10
Table 2	— Number of textile specimens .....	21