

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|---|----------|--|------------------------------------|--|
| Germany | | | | |
| DIN 4102 Brandverhalten von Baustoffen und Bauteilen | | - 1: (B2/B3) surface impingement 230 x 90 x max.60 23/50-2 23/50-2ISO 554 (14 days) | 5 | DIN 4102 (B2/B3 small burner) <u>DIN 53438</u> GB 8626-88 DIN 5510 Teil 2 S1 acc. DIN 53 438 (small parts) |
| | | edge impingement 190 x 90 x max.60 23/50-2ISO 554 (14 days) | 10 | <u>EN ISO 11925-2 Flame application 15 s or 30 s</u> DIN 53438 |
| | | - 1; - 15: Brandschachtprüfung (A/B1) (1000 +0/-5) x (190 +0/-5) x max. (80 +5) In cases where constant mass cannot be defined, climatisation for min 28 d is required. 23 +/- 2 °C, 50 +/- 5% rhISO 554 (conditioning to constant mass (< 0,1% / 24 hrs)) | 12 | DIN 4102 (A2/B1 Brandschacht, indicative) <u>DIN 4102 - 1; - 15: Brandschachtprüfung (A/B1)</u> GB 8625-88 |
| | | indicative test (1000 +0/-5) x (190 +0/-5) x max. (80 +5) 4 specimen for each single test (1 x 4) 23/50-2ISO 554 (14 days) | 4 | |
| | | specimen with covered edges 980 x 180 x max. 80 4 specimen for each single test (3 x 4) 23/50-2ISO 554 (14 days) | 12 | |
| | | specimen with covered edges, indicative test 980 x 180 x max. 80 4 specimen for each single test (1 x 4) 23/50-2ISO 554 (14 days) | 4 | |
| | | - 8: Fire Resistance Test (small sample) (30 min) 550 x 550 x d | 2 | DIN 4102 - 8 (fire resistance, small sample) |
| | | Building materials class (A) non combustibility 50 x 40 x 40 Coatings have to be applied to a 50 x 40 surface 105°C (6 h) | 5 | DIN 4102 (A1, non combustibility test) <u>DIN 4102 Building materials class (A) non combustibility</u> ISO 1182 |
| | | -14; Flooring test | | DIN 4102 -14 (B1, Flooring) |

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| | | test in end use condition non isotropic materials: three in production direction and three perpendicular to production direction 1050 x 230 x d 23/50-2ISO 554 (14 days) | 3 | <u>ASTM E 648</u> <u>EN ISO 9239-1</u> <u>Schweizer Wegleitung Part B 2.4</u> <u>Flooring</u> <u>NEN 1775</u> <u>ISO 9239</u> |
| | | textile materials unconnected to the substrate 1050 x 230 x d three in production direction and three perpendicular to production direction | 6 | <u>DIN 5510 Teil 2 SF1-SF3 acc. DIN</u> <u>4102 T.14 or. ISO 9239-1 (Flooring test)</u> <u>EN ISO 9239-1</u> <u>ASTM E 648</u> |
| | | Annex A combustion under smouldering conditions 270 x 5 x 2 23/50-2ISO 554 (14 days) | 6 | DIN 4102 Anhang A (smouldering combustibility) |
| | | Annex B Combustion under flaming conditions 30 x 30 x d (max. 15 mm) 23/50-2ISO 554 (14 days) | 5 | DIN 4102 Annex B (XP2-chamber) |
| | DIN 51900 Teil 3 Verfahren mit adiabatischem Mantel zur Bestimmung des Heizwertes | DIN 51900 Part 3, Gross heat of combustion Performed by Laboratory of waste incineration BASF ca. 50 g Individual layers have to be tested separately. 23 (+-2) °C / 50 (+-5) % rHISO 554 (24 h) | 1 | Heizwertbestimmung |
| | | DIN 51900 Part 3: Net heat of combustion Performed by Laboratory of waste incineration BASF ca. 50 g Individual layers have to be tested separately. 23 (+-2) °C / 50 (+-5) % rHISO 554 (24 h) | 1 | Heizwertbestimmung |
| | DIN 53438 Kleimbrennertest | | | DIN 4102 (B2/B3 small burner) |

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| | | surface impingement 230 x 90 x max.60 five in production direction and five perpendicular to production direction | 10 | <u>DIN 53438</u> <u>GB 8626-88</u> <u>DIN 5510 Teil 2 S1 acc. DIN 53 438</u> <u>(small parts)</u> |
| | | edge impingement 190 x 90 x max.60 five in production direction and five perpendicular to production direction | 10 | <u>DIN 4102 - 1: (B2/B3)</u> <u>EN ISO 11925-2 Flame application 15 s</u> <u>or 30 s</u> <u>DIN 4102 - 1: (B2/B3)</u> |
| | | Test of core materials of sandwich constructions acc. to DIN 5510-2 (edge impingement) 190 x 90 x max.60 The tests could be carried out at the entire compound on twisted specimens. | 5 | |
| | DIN 54341 (Papierkissentest) Prüfung von Sitzen für Schienenfahrzeuge des öffentlichen Personenverkehrs; Bestimmung des Brennverhaltens mit einem Papierkissen | Paper cushion test test rig Base upholstery (foam): 450 x 300 x d Base upholstery (foam): 450 x 450 x d Fabric: acc. to foam thickness 23/50-2ISO 554 (14 days) | 3 | DIN 5510-2 (paper-cushion-test), not vandalised <u>DIN 54341 (Papierkissentest) Paper</u> <u>cushion test</u> <u>DIN 5510 Teil 2 Tip-up seats, paper</u> <u>cushion test, not vandalised</u> |
| | DIN 54836 Entzündungstemperatur | For technical reasons, we can only determine the ignition temperature at constant test temperature acc. to clause 7.5. Preferably, the simplified procedure acc. to clause 8 is used. 3 g for each single test | 30 | DIN 54836 (ignition temperature) |
| | DIN 54837 | Product test for railway applications Oriented materials like textiles have to be tested length- and crosswise. 23/50ISO 554 (conditioning to constant mass, min 48h) sheets and small parts 500 x 190 x d Profiles and linear products have to be tested as segments of 500 mm length. 23/50-2ISO 554 (48h) | 5 5 | DIN 5510-2 (DB-Brandschacht) <u>DIN 54837</u> <u>DIN 5510 Teil 2 S2-S5 acc. DIN 54 837</u> |

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| | DIN 5510 Teil 2 | Tip-up seats, paper cushion test, not vandalised | | DIN 5510-2 (tip-up seat), not vandalised |
| | | Tip-up seat (Back, base, ...) | 9 | |
| | | Tip-up seats, paper cushion test, not vandalised, vandalised | | DIN 5510-2 (tip-up seat), not vandalised, vandalised |
| | | Tip-up seat (Back, base, ...) | 12 | |
| | | S1 acc. DIN 53 438 (small parts) | | DIN 4102 (B2/B3 small burner) |
| | | surface impingement 230 x 90 x max.60 Non isotropic materials have to be tested lengthwise and crosswise | 5 | <u>DIN 53438</u> GB 8626-88 DIN 4102 - 1: (B2/B3) |
| | | edge impingement 190 x 90 x max.60 Non isotropic materials have to be tested lengthwise and crosswise | 5 | |
| | | small parts end use dimensions | 5 | |
| | | S2-S5 acc. DIN 54 837 | | DIN 5510-2 (DB-Brandschacht) |
| | | end use materials 500 x 190 x d linear products have to be tested as segments of 500 mm length. Non isotropic materials have to be tested lengthwise and crosswise. The core material(s) of sandwich construction have to be tested acc. to DIN 53438-2. | 5 | |
| | | sheets 500 x 190 x d Non isotropic materials have to be tested lengthwise and crosswise. The core material(s) of sandwich construction should be tested acc. to DIN 53438-2. | 5 | |
| | | SF1-SF3 acc. DIN 4102 T.14 or. ISO 9239-1 (Flooring test) | | DIN 4102 -14 (B1, Flooring) |
| | | test in end use condition non isotropic materials: three in production direction and three perpendicular to production direction 1050 x 230 x d 23/50-1ISO 554 (14 days) | 3 | <u>ASTM E 648</u> EN ISO 9239-1 DIN 4102 -14; Flooring test Schweizer Wegleitung Part B 2.4 Flooring NEN 1775 |
| | | textile materials unconnected to the substrate 1050 x 230 x d three in production direction and three perpendicular to production direction 23/50-2ISO 554 (14 days) | 4 | ISO 9239 |

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| | | Seats. paper cushion test | | DIN 5510-2 (paper-cushion-test), not vandalised |
| | | Seats with back, base, armrests, ... | | |
| | | Complete seat (Back, base, armrests, ...) | 6 | <u>DIN 5510 Teil 2 Seats. paper cushion test. not vandalised</u> <i>DIN 5510 Teil 2 Tip-up seats, paper cushion test, not vandalised</i> |
| | | Seats. paper cushion test, not vandalised, vandalised | | DIN 5510-2 (paper-cushion-test), not vandalised |
| | | Complete seat (Back, base, armrests, ...) | 9 | |
| | | Toxicity acc. to Annex C | | ISO 5659-2 (Determination of Smoke Toxicity, DIN 5510-2) |
| | | 25 kW/m ² , horizontal, flaming condition 75 x 75 x max.25 Alternatively for gaskets: profiles, Dmax 25 mm 23 +/- 2 °C, 50 +/- 5% rh (conditioning to constant mass) | 3 | |
| | DIN 75200 KFZ-Insassenraumteile | 356 x 100 x max. 13 a) Width 3 to 60 mm: L = 356 mm b) Width 60 to 100 mm: Lmin = 138 mm c) For W < 60 mm and L < 356 mm, or B from 60 to 100 mm and L < 138 mm: No test possible | 5 | FMVSS 302 (burning rate) <u>FMVSS 302 acc. to TL 1010</u> <i>Richtlinie 95/28/EG - Directive 95/28/EC Annex IV horizontal burning rate</i> <i>U.T.A.C St 18-502/1 2.1 Flame propagation</i> <i>JIS D 1201</i> <i>ISO 3795</i> <i>BS AU 169</i> |
| | DIN EN 16733 Prüfungen zum Brandverhalten von Bauprodukten – Bestimmung der Neigung eines Bauprodukts zum kontinuierlichen Schwelen | 2 specimens for isotropic, 2 x 2 specimens for anisotropic materials. (800 ± 3) mm x (300 ± 3) mm End use thickness, max. 100 mm Anisotropic materials have to be tested length- and crosswise; the more unfavorable orientation to be repeated. Asymmetric specimens are to be tested from both sides; thickness reduction (if required) from the rear. 23 (+-2) °C / 50 (+-5) % rHISO 554 (conditioning to constant mass, or min 48h) | 2 | DIN 4102 (A2/B1 Brandschacht, indicative) |

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| | <p>DIN EN 50267-2-2 Prüfung der bei der Verbrennung der Werkstoffe von Kabeln und isolierten Leitungen entstehenden Gase</p> <p>Bestimmung des Grades der Azidität von Gasen bei Werkstoffen durch die Messung von pH-Wert und Leitfähigkeit</p> <p>Verbrennung bei 935°C</p> | <p>Determination of pH and conductivity of aqueous solution of combustion gases 10 g 23 +- 2 °C, 50 +- 5% rhISO 554 (min 16 hrs.)</p> | 2 | |
| | <p>DIN EN 50305 Bahnanwendungen - Kabel und Leitungen für Schienenfahrzeuge mit verbessertem Verhalten im Brandfall</p> | <p>Chapter 9.2: Toxicity 1 single test at 800°C ca. 10 g 23/50-1ISO 554 (48h)</p> | 1 | <p>BS 6853 Annex B.1 <i>NF X 70-100</i> <i>DIN EN 60754-2 (VDE 0482-754-2):2015-08 Determination of acidity (pH) and conductivity</i> <i>BS 6853 Annex B.1 mass based test method</i> <i>IEC 754-1/2</i></p> |
| | <p>DIN EN 60754-2 (VDE 0482-754-2):2015-08 Prüfung der bei der Verbrennung der Werkstoffe von Kabeln und isolierten Leitungen entstehenden Gase – Teil 2: Bestimmung der Azidität (durch Messung des pH-Wertes) und Leitfähigkeit</p> <p>Verbrennung bei 935°C</p> | <p>Determination of acidity (pH) and conductivity 10 g 23 (+-2) °C / 50 (+-5) % rHISO 554 (min. 16 h)</p> | 3 | <p>NF X 70-100 (French Tube Furnace) <i>NF X 70-100</i> <i>DIN EN 50305 Chapter 9.2: Toxicity</i> <i>BS 6853 Annex B.1 mass based test method</i> <i>IEC 754-1/2</i></p> |
| | <p>DIN EN ISO 340 Fördergurte - Brandverhalten bei Laborprüfung - Anforderungen und Prüfverfahren (ISO 340:2004) Deutsche Fassung EN ISO 340:2004</p> | <p>German version EN ISO 340:2013</p> <p>Textile conveyor belts a) with + w/o cover plate: 2 x 3 with plates length- + crossw. b)with cover plates: 6 each lenth- and crosswise c)For conveyor belts w/o cover plates: each 6 length- and crosswise Steel cable con.belts: 6 lengthw. (200 +- 5) x (25 +- 1) (2x2x3) 23 +- 2 °C, 50 +- 5% rh,ISO 554 (conditioning to constant mass)</p> | 12 | <p>Conveyor belts - Laboratory scale flammability characteristics - Requirements and test method</p> |
| | <p>PV 3357 Dämm-Material - Verhalten beim Beflammen mit einem Brenner Konzern-Norm Volkswagen-AG</p> | <p>Short and longtime flame application to insulation materials. This standard ist not covered by our accreditation.</p> | | <p>VW Brandprüfung Dämm-Material</p> |

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| | | Acc. to Standard: Surface flaming: 2 samples each from min and max thickness of component Edge flaming: 4 samples each with min and max thickness of component. Thereof 2 each with open and embossed cutting edges 230 mm x 200 mm Short- and longtime flame application (15 s and 10 min) 23 +/- 2 °C, 50 +/- 5% rhISO 554 (min. 24h) | 8 | |
| Europe | | | | |
| | DIN EN 45545-2 Railway applications - Fire protection of railway vehicles - Part 2: Requirements for fire behaviour of materials and components Enthält / consists of EN ISO 4589-2 ISO 5658-2 ISO 5659-2 ISO 5660-1 EN ISO 9239-1 EN ISO 11925-2 EN 45545-2 Annex C | | | |
| | DIN EN 60695-11-10 Prüfflammen – Prüfverfahren mit einer 50-W-Prüfflamme horizontal und vertikal | Method B (Bars), incl. Heat ageing 125 +/-5 mm x 13 +/- 0,5 mm x d (d=minimum and maximum end use thickness; preferred: 0,1 - 0,2 - 0,4 - 0,75 - 1,5 - 3,0 - 6,0 - 12,0 mm) (2x5) bei 23/50, (2x5) at 70°C, then 4 h in exsiccator | 20 | Conveyor belts - Laboratory scale flammability characteristics - Requirements and test method <u>UL 94 V-0/ -1/ -2</u> <i>IEC 60695-11-10 (vertikal)</i> <i>ISO 1210 Method B - Determination of afterflame and/or afterglow times on vertical specimens</i> |
| | ECE-R 118 Regelung Nr. 118 der Wirtschaftskommission der Vereinten Nationen für Europa (UN/ECE) — Einheitliche technische Vorschriften über das Brennverhalten von Materialien der Innenausstattung von Kraftfahrzeugen bestimmter Klassen Ersetzt die Richtlinie 95/28/EG | Annex 6: Test to determine the horizontal burning rate of materials 356 x 100 x max. 13 Non isotropic materials shall be tested length- and crosswise (5 specimens each). The thickness of the sample corresponds to the thickness of the product to be tested. If possible, the sample shall have a constant section over its entire length. 23 +/- 2 °C, 50 +/- 5% rhISO 554 (min. 24 hrs, max. 7 d) | 5 | Directive 95/28/EC Annex IV (horizontal) <u>ECE-R 118 Annex 6: Test to determine the horizontal burning rate of materials</u> <i>Richtlinie 95/28/EG - Directive 95/28/EC Annex IV horizontal burning rate</i> |

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| | | <p>Annex 7: Test to determine the melting behaviour of materials 70 x 70 x max. 13 Specimen must have a minimum mass of 2 g. Of specimen with lower mass, sufficient number of specimen has to be combined. 23 +/- 2 °C, 50 +/- 5% rhISO 554 (min. 24h)</p> <p>Annex 8: Test to determine the vertical burning rate of materials 560 x 170 x d Non isotropic materials have to be tested lengthwise and crosswise, i.e. 3 specimens in warp and weft plus 3 specimens each as spare in case of repetition. 23 +/- 2 °C, 50 +/- 5% rhISO 554 (min. 24h)</p> | 4 | <p>Directive 95/28/EC Annex V (dripping test) <u><i>ECE-R 118 Annex 7: Test to determine the melting behaviour of materials</i></u> <i>Richtlinie 95/28/EG - Directive 95/28/EC Annex V</i> <i>Dripping test</i></p> <p>Directive 95/28/EC Annex VI (vertical) <u><i>ECE-R 118 Annex 8: Test to determine the vertical burning rate of materials</i></u> <i>Richtlinie 95/28/EG - Directive 95/28/EC Annex VI</i> <i>Vertical burning rate</i></p> |
| | EN 1021 Entzündbarkeit von Polstermöbeln | <p>Part 1: smouldering cigarette test rig Back upholstery (foam): 1 pc.(450+- 5) x (300+-5 x (75+-2) Base upholstery (foam): 1 pc. (450+-5) x (150+-5) x (75+-2) Fabric: (800+10/-0) x (650+10/-0) Internal or external liners/fabrics which are FR treated need to be watered and dreid prior to conditioning (additional charging) 23 +/- 2 °C, 50 +/- 5% rh (min. 24h)</p> <p>Part 2: small flame test test rig Back upholstery (foam): 1 pc. (450+- 5) x (300+-5) x (75+-2) Base upholstery (foam): 1 pc. (450+-5) x (150+-5) x (75+-2) Fabric: (800+10/-0) x (650+10/-0) Internal or external liners/fabrics which are FR treated need to be watered and dreid prior to conditioning (additional charging) 23 +/- 2 °C, 50 +/- 5% rh (min. 24h)</p> | 2 | <p>EN 1021-1 (smouldering cigarette) <u><i>BS 5852 Part 1-6</i></u> <i>NT Fire 014</i> <i>JIS A 1321 Surface-Test</i> <i>EN 1021 Part 2: small flame test</i> <i>UNI 9175</i></p> <p>EN 1021-2 (small-flame-test) <u><i>BS 5852 Part 1-6</i></u> <i>NT Fire 014</i> <i>JIS A 1321 Surface-Test</i> <i>EN 1021 Part 1: smouldering cigarette</i> <i>UNI 9175</i></p> |
| | EN 13823 Single Burning Item (orientierend) | <p>(indicative) long wing: 1000 x 1500 x d, short wing: 500 x 1500 x d d max = 200 mm 23/50-1EN 13238 (conditioning to constant mass)</p> | 1 | |

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| | EN 50267-2-2 Prüfung der bei der Verbrennung der Werkstoffe von Kabeln und isolierten Leitungen entstehenden Gase Bestimmung des Grades der Azidität von Gasen bei Werkstoffen durch die Messung von pH-Wert und Leitfähigkeit | 10 g | 6 | |
| | EN 60695-2-11 Glow-wire test for end products | Test of GWEPT on end products per standard: 1 single test against the most critical part (closest to thermal attack) of the specimen. Recommended: 3 single tests. Sample size not defined by the standard. 15 - 35°C / 45 - 75% r.H. (24 h) | 1 | IEC 60695-2-10 (Glow-wire-test) <u>IEC 60695 Part 2-10: Glow-wire-test</u> <u>VDE 0471 Part 2-1: Glow-wire-test</u> |
| | | Glow wire flammability test for end products acc. to EN 45545-2:2016, R25 per standard: 1 single specimen required; to be tested against the most critical part (closest to thermal attack) of the specimen. Recommended: 3 single tests. Sample size not defined by the standard. 15 - 35°C / 45 - 75% r.H. (24 h) | 1 | EN 60695-2-11 (Glow-wire test for end products) |
| | EN ISO 1182 Non-Combustibility-Test | ø 45 x 50, V: 80 cm ³ cylindrical sample 23/50-2EN 13238 (conditioning to constant mass) | 5 | EN ISO 1182 (non combustibility test) <u>ISO 1182</u> <u>GB 3464-85</u> <u>UNE 23-102</u> <u>ÖNORM B 3800 (Entw.Beibl.) Non combustibility</u> <u>NT Fire 001</u> <u>NEN 6064</u> <u>JIS A 1321 Incombustibility-Test</u> <u>IMO (Res.A.472(XII))</u> <u>DS 1056</u> <u>BS 476 Part 4 bzw. Part 11</u> <u>AS 1530; Part 1</u> |
| | EN ISO 11925-2 Reaction to fire tests for building products - Part 2: Ignitability when subjected to direct impingement of flame | Annex A | | EN ISO 11925-2 (small burner) |

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| | | <p>Non isotropic materials have to be tested in production direction and perpendicular to production direction 250 x 180 x max. 60 mm 23 +/- 2 °C, 50 +/- 5% rhEN 13238 (conditioning to constant mass, min 48h)</p> <p>Flame application 15 s or 30 s 15 s flame impingement for E and F classification; 30 s flame impingement for B - D classification Non isotropic materials have to be tested in production direction and perpendicular to production direction 250 x 90 x max. 60 mm</p> | 6 | <p><u>DIN 4102 - 1: (B2/B3)</u> <i>UNI 8456 Combustible materials which can be exposed to a flame on both surfaces</i> <i>BS 5438 Test 2A. Limited flame spread: face ignition</i> <i>EN ISO 11925-2 Flame application 15 s or 30 s</i> <i>ÖNORM B 3800 (Entw.Beibl.) class B2, small burner test</i> <i>UNI 8457 Combustible materials which can be exposed to a flame on one surface</i></p> <p>EN ISO 11925-2 (small burner) <u>DIN 4102 - 1: (B2/B3)</u> <i>UNI 8456 Combustible materials which can be exposed to a flame on both surfaces</i> <i>EN ISO 11925-2 Annex A</i> <i>BS 5438 Test 2A. Limited flame spread: face ignition</i> <i>ÖNORM B 3800 (Entw.Beibl.) class B2, small burner test</i> <i>UNI 8457 Combustible materials which can be exposed to a flame on one surface</i></p> |
| | EN ISO 9239-1 Reaction to fire tests for floorings - Part1: Determination of the burning behaviour using a radiant source (ISO/FDIS 9239-1) | For non isotropic materials 1 sample of each orientation (in production direction and perpendicular to production direction) has to be tested. The test has to be repeated twice for the orientation with lowest CHF and/or HF-30 value. 1050 x 230 x d 23/50-2EN 13238 (conditioning to constant mass) | 6 | <p>EN ISO 9239-1 (Flooring) <u>ASTM E 648</u> <i>DIN 4102 -14; Flooring test</i> <i>Schweizer Wegleitung Part B 2.4 Flooring</i> <i>NEN 1775</i> <i>ISO 9239</i> <i>DIN 5510 Teil 2 SF1-SF3 acc. DIN 4102 T.14 or. ISO 9239-1 (Flooring test)</i> <u>ISO 9239</u> <i>ASTM E 648</i></p> |
| | Richtlinie 95/28/EG - Directive 95/28/EC des europäischen Parlamentes und Rates vom 24. Oktober 1995 über das Brennverhalten von Werkstoffen der Innenausstattung bestimmter Kraftfahrzeugklassen Burning behaviour of materials used in interior construction of certain categories of motor vehicles | Annex IV horizontal burning rate Annex IV Non isotropic materials have to be tested in production direction and perpendicular to production direction 356 x 100 x max. 13 23/50-2EN 13238 (conditioning to constant mass) | 5 | <p>FMVSS 302 (burning rate) <u>FMVSS 302 acc. to TL 1010</u> <i>U.T.A.C St 18-502/1 2.1 Flame propagation</i> <i>JIS D 1201</i> <i>ISO 3795</i> <i>DIN 75200</i> <i>BS AU 169</i></p> |

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| | | Annex V Dripping test | | NF P 92-505 (dripping test) |
| | | Annex V 70 x 70 x max. 13 23/50-2EN 13238 (min. 24h) | 4 | <u>NF P 92-505</u> <u>UNE 23-725</u> <u>U.T.A.C St 18-502/1 2.2 Dripping test</u> |
| | | Annex VI Vertical burning rate | | Directive 95/28/EC Annex VI (vertical) |
| | | Annex VI Non isotropic materials have to be tested in production direction and perpendicular to production direction 560 x 170 x d 23/50-2EN 13238 (min. 24h) | 3 | |
| | Richtlinie 97/24/EG Directive 97/24/EC | Annex 1 Horizontal burning rate | | UL 94 HB (horizontal) |
| | Kraftstoffbehälter für zweirädrige oder dreirädrige Kraftfahrzeuge - Feuerbeständigkeitsprüfung | 125 x 12,5 x d | 10 | <u>UL 94 HB</u> <u>ASTM D 635</u> <u>IEC 60695-11-10 (horizontal)</u> |
| France | | | | |
| | NF EN 11925-2 | | | EN ISO 11925-2 (small burner) |
| | Brennbarkeitsprüfung an Polystyrol-Hartschäumen | 3 samples lengthwise / 3 crosswise, or 6 isotropic samples (250 +0/-1) x (90 +0/-1) x (20 +- 1) | 6 | |
| | Prüfung auf Klasse E mit verschärften Kriterien für die Zertifizierung in Frankreich | 23 +- 2 °C, 50 +- 5% rh ISO 554 (48h) | | |
| | NF F 16-101 | | | |
| | Choix des matériaux, beinhaltet / includes: Platten / sheets: NF P 92-501/3/4/5 Kleinteile / small parts: NF EN ISO 60695 Glühdraht NF EN ISO 4589 (Oxygen-Index) NF X 10-702 (Rauchdichte) NF X 70-100 (Gasanalyse) NF G 07-128 Essai de tenue au feu du sièges | | | |
| | NF P 92-501 | | | NF P 92-501 (Epiradiateur) |
| | Essai par rayonnement | | | |

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| | | The exposed surface of sandwich panels has to be grooved (3mm). The groove should be placed from the middle of the narrow side 180 mm in direction of the sample centre parallel to the long side. | 4 | <u>NF P 92-501</u> <u>UNE 23-721</u> |
| | | 400 x 300 x d. (d(max) = 120 mm 23 (+-2) °C / 50 (+-5) % rHconstant weight (< 0,1% or < 0,1 g in 24 h)) | | |
| | NF P 92-503 Essai au bruleur électrique | 600 x 180 x max.5 Anisotropic materials have to be tested length- and crosswise; the more unfavorable orientation to be repeated. Asymmetric specimens are to be tested from both sides; thickness reduction (if required) from the rear. 23 (+-2) °C / 50 (+-5) % rH7 days, or constant mass | 4 | NF P 92-503 (electrical burner) <u>NF P 92-503</u> <u>UNE 23-723</u> <i>U.T.A.C St 18-502/1 2.3 electrical burner</i> |
| | NF P 92-505 Essai de goutte pour materiaux fusible (Abtropfversuch) | 70 x 70 x d. d(max) = 100 mm The specimen shall have a mass of at least 2 g 23 (+-2) °C / 50 (+-5) % rHconstant weight (< 0,1% or < 0,1 g in 24 h)) | 4 | NF P 92-505 (dripping test) <u>NF P 92-505</u> <i>Richtlinie 95/28/EG - Directive 95/28/EC Annex V</i> <i>Dripping test</i> <u>UNE 23-725</u> <i>U.T.A.C St 18-502/1 2.2 Dripping test</i> |
| | NF X 10-702 Essai de mesure de la densité optique spécifique de la fumée (Rauchdichte) | (76,0 +0,2/-0,6) x (76,0 +0,2/-0,6) x max. (19,0 +- 0,3) mm 23 +- 2 °C, 50 +- 5% rh (min. 48 h) | 4 | NF X 10-702 (NBS Smoke Box) <u>ASTM E 662</u> <i>BS 6853 Annex B.2 Area based test method</i> <i>ABD 0031 Chapter 7-3 and 7-4</i> <i>NFPA 258 Smoke Generation of Solid Materials</i> <i>BS 6401</i> |
| | NF X 70-100 Analyse des gaz de combustion et de pyrolyse | ca. 10 g 23/50-1ISO 554 (conditioning to constant mass, min 48h) | 1 | NF X 70-100 (French Tube Furnace) <u>NF X 70-100</u> <i>DIN EN 60754-2 (VDE 0482-754-2):2015-08 Determination of acidity (pH) and conductivity</i> <i>DIN EN 50305 Chapter 9.2: Toxicity</i> <i>BS 6853 Annex B.1 mass based test method</i> <i>IEC 754-1/2</i> |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|---------------|--|--|------------------------------------|---|
| | U.T.A.C St 18-502/1 | 2.1 Flame propagation 356 x 100 x max. 13 | 5 | FMVSS 302 (burning rate) <i>FMVSS 302 acc. to TL 1010</i> <i>Richtlinie 95/28/EG - Directive 95/28/EC Annex IV</i> <i>horizontal burning rate</i> <i>JIS D 1201</i> <i>ISO 3795</i> <i>DIN 75200</i> <i>BS AU 169</i> |
| | | 2.2 Dripping test 70 x 70 x max. 60 | 4 | NF P 92-505 (dripping test) <i>NF P 92-505</i> <i>Richtlinie 95/28/EG - Directive 95/28/EC Annex V</i> <i>Dripping test</i> <i>UNE 23-725</i> |
| | | 2.3 electrical burner 600 x 180 x max. 5 | 4 | NF P 92-503 (electrical burner) <i>NF P 92-503</i> <i>UNE 23-723</i> |
| Britan | | | | |
| | BS 2782 Part 1 Oxygen-Index-Test | solid materials 70-150 x 6,5 x 3,0 films 140 x 52 x d | 30 30 30 | ISO 4589 (Oxygenindex, LOI) <i>ISO 4589-2</i> <i>NT Fire 013</i> <i>NES 714</i> <i>JIS K 7201</i> |
| | BS 2782 Part 5, Method 508A Methods of testing plastics: Rate of burning | Test by non-luminous flame for 10 s 150 x 13 x 1,5+-0,1 3 samples as spare | 3 | UL 94 HB (horizontal) |
| | BS 415 Part 20.2 Fernsehergehäuse (Bunsenbrenner) | 125±5 x 13 x max. 1,3 | 5 | UL 94 HB (horizontal) <i>IEC 60065 Burner test</i> <i>NEN 21210</i> <i>ISO 1210 Method A - Determination of linear burning rate o horizontal specimens</i> <i>IEC 60695 Part 11-5: Needle flame test</i> |
| | BS 476 Part 6 Fire propagation | | | BS 476 Part 6 (fire propagation) |

List of available test methods

| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|---------|--|--|------------------------------------|--|
| | | (225 ± 1,5) mm x (225 ± 1,5) mm x d (max. 50) Specimens of normal thickness > 50 mm are reduced in thickness by cutting away the unexposed face to 50 (+0/-3) mm. Please define whether the test shall be performed with air gap or a defined substrate! 23 ± 2 °C, 50 ± 5% rh (conditioning to constant mass) | 3 | |
| | BS 476 Part 7 Spread of flame | Spread of flame (885 +0, -5) x (270 + 0, -5) x max. 50 mm Specimens expected to achieve Class 1 may have a minimum length of 250 mm. Please respect maximum sample dimensions ! For tests on upholstery composites, the foam dimensions have to take into account the thickness of the fabric layer(s). 23 ± 2 °C, 50 ± 10% rh ISO 554 (conditioning to constant mass) | 6 | BS 476 Part 7 (spread of flame) |
| | BS 5438 Flammability of textile fabrics when subjected to a small igniting flame applied to the face or bottom edge of vertically oriented specimens | Test 2A. Limited flame spread: face ignition Test 2A 200 x 160 x thickness (2 x 3); 3 specimens in length direction and 3 specimens in width direction 23/50-2ISO 554 (min. 24h) | 6 | DIN 4102 (B2/B3 small burner) <i>DIN 4102 - 1: (B2/B3)</i> <i>UNI 8456 Combustible materials which can be exposed to a flame on both surfaces</i> <i>EN ISO 11925-2 Annex A</i> <i>EN ISO 11925-2 Flame application 15 s or 30 s</i> <i>ÖNORM B 3800 (Entw.Beibl.) class B2, small burner test</i> <i>UNI 8457 Combustible materials which can be exposed to a flame on one surface</i> |
| | BS 5852 Part 1-6 Assessment of the ignitability of upholstered seating by smouldering and flaming ignition sources | Crib 5 Upholstery: 450 x 450 x 75 and 450 x 300 x 75 Fabric: 1100 x 650 Crib 7 Upholstery: 450 x 450 x 75 and 450 x 300 x 75 Fabric: 1100 x 650 | 2 2 | BS 5852 (z.B.: Crib 5, Crib 7) <i>BS 5852 Part 1-6</i> <i>NT Fire 014</i> <i>JIS A 1321 Surface-Test</i> <i>EN 1021 Part 2: small flame test</i> <i>EN 1021 Part 1: smouldering cigarette</i> <i>UNI 9175</i> |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list <i>reference to similar standards</i> |
|----------------------|---|---|------------------------------------|---|
| | BS 6853 Annex B.1 Code of practice for fire precaution of passenger carrying trains Annex B Determination of weighted summation of toxic fume, R | mass based test method ca. 10 g 23/50-1ISO 554 (conditioning to constant mass) | | BS 6853 Annex B.1 <i>NF X 70-100</i> <i>DIN EN 60754-2 (VDE 0482-754-2):2015-08 Determination of acidity (pH) and conductivity</i> <i>DIN EN 50305 Chapter 9.2: Toxicity IEC 754-1/2</i> |
| | BS 6853 Annex B.2 Code of practice for fire precaution of passenger carrying trains Annex B Determination of weighted summation of toxic fume, R | Area based test method 75 x 75 x max.25 | 9 | BS 6853 Annex B.2 (smoke toxicity test) <i>ASTM E 662</i> <i>ABD 0031 Chapter 7-3 and 7-4</i> <i>NFPA 258 Smoke Generation of Solid Materials</i> <i>NF X 10-702</i> <i>BS 6401</i> |
| | BS AU 169 Materials for motor vehicles | 356 x 100 x max. 13 | 5 | FMVSS 302 (burning rate) <i>FMVSS 302 acc. to TL 1010</i> <i>Richtlinie 95/28/EG - Directive 95/28/EC Annex IV horizontal burning rate</i> <i>U.T.A.C St 18-502/1 2.1 Flame propagation</i> <i>JIS D 1201</i> <i>ISO 3795</i> <i>DIN 75200</i> |
| International | | | | |
| | FAR/JAR P.25.853 Inneneinrichtung Interior | (a)(1)(i) / (a)(1)(ii) ; vertical Non isotropic materials have to be tested length- and crosswise 305 x 75 x d D = end use thickness For different end use thicknesses, the minimum thickness has to be tested. Foams with > 13 mm thickness will be tested in 13 mm thickness. 21±3°C, 50±5% rHISO 554 (min. 24h) | 3 | California-Test 117 Section A, Part I |
| | | (a)(1)(iv) / (a)(1)(v) ; horizontal Non isotropic materials have to be tested length- and crosswise 350 x 100 x d | 3 | FMVSS 302 (burning rate) |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|---------|---|--|------------------------------------|--|
| | IEC 60695-11-10 (horizontal) | | | UL 94 HB (horizontal) |
| | Prüfungen zur Beurteilung der Brandgefahr | 125 +/-5 mm x 13 +/- 5 mm x max. 13 mm | 6 | FMVSS 302 acc. to SAE |
| | Prüfflammen – Prüfverfahren mit 50-W-Prüfflamme horizontal | Deburred edges, radius max. 1,3 mm (2x3) 23 +/- 2 °C, 50 +/- 5% rh | | <u>UL 94 HB</u> ASTM D 635 Richtlinie 97/24/EG Directive 97/24/EC Annex 1 Horizontal burning rate |
| | ISO 1182 | | | EN ISO 1182 (non combustibility test) |
| | Non-Combustibility-Test | ø 45 x 50, V: 80 cm ³ | 5 | <u>ISO 1182</u> EN ISO 1182 GB 3464-85 UNE 23-102 ÖNORM B 3800 (Entw.Beibl.) Non combustibility NT Fire 001 NEN 6064 JIS A 1321 Incombustibility-Test IMO (Res.A.472(XII)) DS 1056 BS 476 Part 4 bzw. Part 11 AS 1530; Part 1 |
| | | The specimen must have an axial hole (internal diameter 2 mm) The length of the hole must be 25 mm (to the middle of the specimen). The bottom of the hole must be plane. | | |
| | ISO 1716 | | | Heizwertbestimmung |
| | Bestimmung der Verbrennungswärme | ISO 1716, Gross heat of combustion Performed by laboratory of BASF waste incineration. ca. 50 g Individual layers have to be tested separately. 23 +/- 2 °C, 50 +/- 5% rh ISO 554 (24 h) | 1 | |
| | | ISO 1716, Net heat of combustion ca. 50 g Individual layers have to be tested separately. 23 +/- 2 °C, 50 +/- 5% rh, ISO 554 (24 h) | 1 | Heizwertbestimmung |
| | ISO 3582 | | | UL 94 HBF /HF-1 /-2 (horizontal, Foam products) |
| | Flexible cellular polymeric materials - Laboratory assessment of horizontal burning characteristics of small specimens subjected to a small flame | Test earliest 78 hrs. after fabrication 150 x 50 x 5-13 Pre-conditioning at 23/50 or 27/65 | 10 | |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|---------|--|---|--|--|
| | ISO 3795 KFZ-Insassenraumteile | 356 x 100 x max.13 | 5 | FMVSS 302 (burning rate) <i>FMVSS 302 acc. to TL 1010</i> <i>Richtlinie 95/28/EG - Directive</i> <i>95/28/EC Annex IV</i> <i>horizontal burning rate</i> <i>U.T.A.C St 18-502/1 2.1 Flame</i> <i>propagation</i> <i>JIS D 1201</i> <i>DIN 75200</i> <i>BS AU 169</i> |
| | ISO 4589-2 Oxygen-Index-Test | Test specimen form I; for moulding materials [80-150] x [10 ± 0,5] x [4 ± 0,25] (in mm) 23 (+-2) °C / 50 (+-5) % rHISO 554 (min. 88 h) Test specimen form II; for cellular materials [80-150] x [10 ± 0,5] x [10 ± 0,25] (in mm) Test specimen form III; for sheet materials "as received" [80-150] x [10 ± 0,5] x [≤ 10,5] (in mm) Test specimen form IV; alternative size for self-supporting moulding or sheet materials, for electrical purposes [70-150] x [6,5 ± 0,5] x [3 ± 0,25] (in mm) Test specimen form V; for flexible film or sheet [140 +0 -5] x [52 ± 0,5] x [≤ 10,5] (in mm) Test specimen form VI; for thin film "as received"; limited to the film that can be rolled by the specified rod 140 - 200 x 20 x 0,02 - 0,10 (in mm) | 20 20 20 20 20 | ISO 4589 (Oxygenindex, LOI) <i>ISO 4589-2</i> <i>NT Fire 013</i> <i>NES 714</i> <i>JIS K 7201</i> <i>BS 2782 Part 1</i> |
| | ISO 5658-2 Reaction to fire tests - Spread of flame Part 2: Lateral spread on building products in vertical configuration | | | ISO 5658-2 (Spread of flame) |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|---------|---|--|------------------------------------|---|
| | | Product with orientation shall be tested in both directions. !! Please specify whether the test shall be performed with backing, or with air gap!! (800 +0/-5) x (155 +0/-5) x max. 70 mm 6 specimen for each orientation. Hoses and pipes: 800 mm long sections shall be arranged lengthwise into a test specimen so that the frame of 800 x 155 mm ist filled. Each test specimen shall consist of at least 2 sections. See ISO 5658-2:2006, Annex F. 23 +/- 2 °C, 50 +/- 5% rhISO 554 (conditioning to constant mass 0,1%) | 6 | |
| | ISO 5659-2 Smoke Obscuration Test (NBS-Kammer, horizontal) | Determination of smoke density 25 kW/m ² without pilot flame 25 kW/m ² with pilot flame 50 kW/m ² without pilot flame 50 kW/m ² with pilot flame 3 tests for each irradiance level 75 ± 1 x 75 ± 1 x max. 25 ± 0,1 (mm) Maximum dimensions need to be respected! min 3 samples as spare 23 +/- 2 °C, 50 +/- 10% rhISO 554 (conditioning to constant mass) | 12 | ISO 5659-2 (smoke density test) |
| | | Determination of smoke density at one irradiance level. 3 single tests 75 ± 1 x 75 ± 1 x max. 25 ± 0,1 (mm) Maximum dimensions need to be respected! 3 specimens for test, plus 5 as spare 23 +/- 2 °C, 50 +/- 10% rhISO 554 (conditioning to constant mass) | 8 | ISO 5659-2 (smoke density test) <u>ISO 5659-2 Determination of smoke density at one irradiance level.</u> ISO 5659-2 |
| | | 25 kW/m ² , horizontal, flaming mode 75 ± 1 x 75 ± 1 x max. 25 ± 0,1 (mm) Maximum dimensions need to be respected! 3 samples as spare. 23/50ISO 554 (conditioning to constant mass) | 6 | ISO 5659-2 (smoke density test) |
| | | Determination of smoke density and smoke toxicity | | ISO 5659-2 (Smoke density + FTIR-analysis) |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list <i>reference to similar standards</i> |
|---------|---|--|------------------------------------|--|
| | | For EN 45545-2 or CEN/TS 45545: Please define irradiance (25 / 50 kW/m ²) ! 75 ± 1 x 75 ± 1 x max. 25 ± 0,1 (mm) Maximum dimensions need to be respected! 3 specimens for test; plus 5 as spare. 23 +/- 2 °C, 50 +/- 10% rhISO 554 (conditioning to constant mass) | 8 | |
| | | Determination of Smoke Gas Toxicity acc. to DIN 5510-2 Annex C 25 kW/m ² , horizontal, flaming mode 75 ± 1 x 75 ± 1 x max. 25 ± 0,1 (mm) Maximum dimensions need to be respected! Gas sampling at 4 and 8 minutes for each specimen for gas analysis. 3 samples as spare. 23/50ISO 554 (conditioning to constant mass) | 6 | ISO 5659-2 (Determination of Smoke Toxicity, DIN 5510-2) |
| | ISO 5660-1 Rate of Heat Release (Cone-Calorimeter) | 100 (+0/-2) x 100 (+0/-2) x max.50 Maximum dimensions need to be respected! 23 +/- 2 °C, 50 +/- 5% rhISO 554 (conditioning to constant mass 0,1%) | 7 | ISO 5660 (Cone-Calorimeter) <u>ISO 5660-1</u> <u>ISO 5660-2</u> <u>AS/NZS 3837</u> |
| | ISO 5660-2 Rate of smoke release (Cone Calorimeter) | 100 (+0/-2) x 100 (+0/-2) x max.50 (3 samples per irradiance level, plus 3 as spare) 23 +/- 2 °C, 50 +/- 5% rhISO 554 (conditioning to constant mass 0,1%) | 9 | ISO 5660 (Cone-Calorimeter) <u>ISO 5660-1</u> <u>AS/NZS 3837</u> |
| | ISO 6940 Textile fabrics- Burning behaviour- Determination of ease of ignition of vertically oriented specimens | 200 x 80 x d warp and fill direction (2x15) | 30 | Price per enquiry <u>ISO 6940</u> <i>U.T.A.C. St 18-502/2 2.1 vertical test</i> |
| | ISO 6941 Textile fabrics- Burning behaviour- Measurement of flame spread properties of vertically orient. specimens | 560 x 170 x d warp and fill direction (2x6) | 12 | Price per enquiry <u>ISO 6941</u> <i>U.T.A.C. St 18-502/2 2.2 vertical burning rate</i> |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list <i>reference to similar standards</i> |
|---------|--|---|------------------------------------|---|
| | ISO 9239 Floor Coverings- Determination of Critical Radiant Flux Using a Radiant Heat Energy Source | 1050 x 230 x d Length- and Crosswise (2x3) 23/50-2EN 13238 (min. 2 Wochen; od. je nach Prod. Bis zu 2 Monaten) | 6 | DIN 4102 -14 (B1, Flooring) <u>ASTM E 648</u> <i>EN ISO 9239-1</i> <i>DIN 4102 -14; Flooring test</i> <i>Schweizer Wegleitung Part B 2.4 Flooring</i> <i>NEN 1775</i> <i>DIN 5510 Teil 2 SF1-SF3 acc. DIN 4102 T.14 or. ISO 9239-1 (Flooring test)</i> |
| | ISO 9772 Cellular plastics - Determination of horizontal burning characteristics of small specimen subjected to a small flame | 150 ±10 x 50±1, x max 13 mm a) >=48h: 23 +-2 °C/50 +-5 % rH; b) 168 h: 70+-2°C | 20 | UL 94 HBF /HF-1 /-2 (horizontal, Foam products) <u>ISO 9772</u> <i>ISO 9772</i> |
| | UIC 564.2 Schienenfahrzeuge | Annex 12 Fire Resistance of floor coverings Floor covering on a substrate according to UIC 564-2 Annex 4, class A Substrate: 160 mm x 300 mm x 10 mm Floor covering: 160 mm x 300 mm x d 23/50-1ISO 554 (48h) Annex 13 seats, paper cushion test Complete Seat with back, base, armrests, ... 150 x 50 x 5-13 2 samples lengthwise, 2 samples crosswise 23 +- 2 °C, 50 +- 5% rhISO 554 (min 16 hrs.) | 3 3 4 | DIN 5510-2 (DB-Brandschacht) DIN 5510-2 (paper-cushion-test), not vandalised UL 94 HBF /HF-1 /-2 (horizontal, Foam products) |
| | UIC Kodex 564-2 Vorschriften über Brandverhütung und Feuerbekämpfung für die im internationalen Verkehr eingesetzten Schienenfahrzeuge | Annex 6: Fire resistance of rubber gaskets for doors and windows 320 mm length Bunsen burner, Butane or Propane gas fired 23/50-1ISO 554 | 3 | ASTM C 1166 (Lock-Strip Gaskets) |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|--------------|--|--|------------------------------------|---|
| Italy | | | | |
| | UNI 8456 Piccola fiamma | Combustible materials which can be exposed to a flame on both surfaces free hanging 340 x 104 x d five in production direction and five perpendicular to production direction | 10 | UNI 8456 (ital. small burner) <i>DIN 4102 - 1: (B2/B3)</i> <i>EN ISO 11925-2 Annex A</i> <i>BS 5438 Test 2A. Limited flame spread: face ignition</i> <i>EN ISO 11925-2 Flame application 15 s or 30 s</i> <i>ÖNORM B 3800 (Entw.Beibl.) class B2, small burner test</i> <i>UNI 8457 Combustible materials which can be exposed to a flame on one surface</i> |
| | UNI 8457 Piccola fiamma | Combustible materials which can be exposed to a flame on one surface free hanging 340 x 104 x d five in production direction and five perpendicular to production direction with backing board 340 x 104 x d | 10 10 | UNI 8457 (ital. small burner) <i>DIN 4102 - 1: (B2/B3)</i> <i>UNI 8456 Combustible materials which can be exposed to a flame on both surfaces</i> <i>EN ISO 11925-2 Annex A</i> <i>BS 5438 Test 2A. Limited flame spread: face ignition</i> <i>EN ISO 11925-2 Flame application 15 s or 30 s</i> <i>ÖNORM B 3800 (Entw.Beibl.) class B2, small burner test</i> |
| | UNI 9175 Reazione al Fuoco di Mobili imbottiti sottoposti all’Azione di piccola fiamma | Base upholstery (foam): 450 x 300 x d Base upholstery (foam): 450 x 450 x d Fabric: acc. to foam thickness: 800 x 650 x d | 5 | UNI 9175 (flame test) <i>BS 5852 Part 1-6</i> <i>NT Fire 014</i> <i>JIS A 1321 Surface-Test</i> <i>EN 1021 Part 2: small flame test</i> <i>EN 1021 Part 1: smouldering cigarette</i> |
| Japan | | | | |
| | JIS D 1201 Materials for Automobiles | 350 x 100 x max.12 | 5 | FMVSS 302 (burning rate) <i>FMVSS 302 acc. to TL 1010</i> <i>Richtlinie 95/28/EG - Directive 95/28/EC Annex IV horizontal burning rate</i> <i>U.T.A.C St 18-502/1 2.1 Flame propagation</i> <i>ISO 3795</i> <i>DIN 75200</i> <i>BS AU 169</i> |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|-------------------|---|--|------------------------------------|--|
| | JIS K 7201 Oxygen-Index-Test | solid materials 70-150 x 6,5 x 3 flexible materials, foams 140 x 52 x d | 30 30 | ASTM D 2863 (LOI) <i>ISO 4589-2</i> <i>NT Fire 013</i> <i>NES 714</i> <i>BS 2782 Part 1</i> |
| Netherland | | | | |
| | NEN 1775 Bodenbeläge u.-beschichtungen incl. Rauchdichtemessung | 1050 x 230 x d | 4 | DIN 4102 -14 (B1, Flooring) <i>ASTM E 648</i> <i>EN ISO 9239-1</i> <i>DIN 4102 -14; Flooring test</i> <i>Schweizer Wegleitung Part B 2.4</i> <i>Flooring</i> <i>ISO 9239</i> <i>DIN 5510 Teil 2 SF1-SF3 acc. DIN</i> <i>4102 T.14 or. ISO 9239-1 (Flooring test)</i> |
| | NEN 2120 Determination of flammability of plastics in the form of bars | 125 x 13 x 3 | 5 | UL 94 HB (horizontal) <i>IEC 60065 Burner test</i> <i>ISO 1210 Method A - Determination of</i> <i>linear burning rate o horizontal</i> <i>specimens</i> <i>IEC 60695 Part 11-5: Needle flame test</i> <i>BS 415 Part 20.2</i> |
| | NEN 6064 Non-Combustibility-Test | ø 45 x 50, V: 80 cm ³ | 5 | EN ISO 1182 (non combustibility test) <i>ISO 1182</i> <i>EN ISO 1182</i> <i>GB 3464-85</i> <i>UNE 23-102</i> <i>ÖNORM B 3800 (Entw.Beibl.) Non</i> <i>combustibility</i> <i>NT Fire 001</i> <i>JIS A 1321 Incombustibility-Test</i> <i>IMO (Res.A.472(XII))</i> <i>DS 1056</i> <i>BS 476 Part 4 bzw. Part 11</i> <i>AS 1530; Part 1</i> |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|--------------------|--|--|------------------------------------|---|
| Sweden | | | | |
| | Volvo Standard 104-0001 Flammability (burning behaviour) of interior materials | 356 x 100 x max. 13 10 specimen in lengthwise and crosswise direction 23 +/- 2 °C, 50 +/- 5% rhISO 554 (min. 24 hrs, max. 7 d) | 5 | FMVSS 302 (burning rate) |
| Switzerland | | | | |
| | Schweizer Wegleitung für Feuerpolizeivorschriften | Part B 2.4 Flooring 1050 x 250 | 6 | DIN 4102 -14 (B1, Flooring) <u>ASTM E 648</u> EN ISO 9239-1 DIN 4102 -14; Flooring test NEN 1775 ISO 9239 DIN 5510 Teil 2 SF1-SF3 acc. DIN 4102 T.14 or. ISO 9239-1 (Flooring test) |
| Skandinavia | | | | |
| | NT Fire 001 Non-Combustibility-Test | ø 45 x 50, V: 80 cm ³ | 5 | EN ISO 1182 (non combustibility test) <u>ISO 1182</u> EN ISO 1182 GB 3464-85 UNE 23-102 ÖNORM B 3800 (Entw.Beibl.) Non combustibility NEN 6064 JIS A 1321 Incombustibility-Test IMO (Res.A.472(XII)) DS 1056 BS 476 Part 4 bzw. Part 11 AS 1530; Part 1 |
| | NT Fire 013 Oxygen-Index-Test | solid materials 80-150 x 6,5 x 3 films 140 x 52 x <10,5 foam products 80-150 x 10 x 10 | 30 30 30 | ASTM D 2863 (LOI) <u>ISO 4589-2</u> NES 714 JIS K 7201 BS 2782 Part 1 |
| | NT Fire 014 Furniture - Upholstered Seats: Ignitability | Base upholstery (foam): 450 x 300 x d Base upholstery (foam): 450 x 450 x d Fabric: acc. to foam thickness: 800 x 650 x d | 3 | BS 5852 (z.B.: Crib 5, Crib 7) <u>BS 5852 Part 1-6</u> JIS A 1321 Surface-Test EN 1021 Part 2: small flame test EN 1021 Part 1: smouldering cigarette UNI 9175 |

List of available test methods

| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list <i>reference to similar standards</i> |
|--------------|---|--|------------------------------------|--|
| Spain | | | | |
| | UNE 23-102 Incombustibilidad | cylindrical samples ø 45 x 50, V: 80 cm ³ | 5 | EN ISO 1182 (non combustibility test) <u>ISO 1182</u> EN ISO 1182 GB 3464-85 ÖNORM B 3800 (Entw.Beibl.) Non combustibility NT Fire 001 NEN 6064 JIS A 1321 Incombustibility-Test IMO (Res.A.472(XII)) DS 1056 BS 476 Part 4 bzw. Part 11 AS 1530; Part 1 |
| | UNE 23-721 Radiacion | The exposed surface of sandwich panels has to be grooved (2 mm). The groove should be placed from the middle of the narrow side 180 mm in direction of the sample centre parallel to the long side. 400 x 300 x d | 4 | NF P 92-501 (Epiradiateur) |
| | UNE 23-723 Quemador electrico | 600 x 180 x max.5 | 4 | NF P 92-503 (electrical burner) <u>NF P 92-503</u> U.T.A.C St 18-502/1 2.3 electrical burner |
| | UNE 23-725 Goteo aplicable a los materiales fusibles | 70 x 70 x d | 4 | NF P 92-505 (dripping test) <u>NF P 92-505</u> Richtlinie 95/28/EG - Directive 95/28/EC Annex V Dripping test U.T.A.C St 18-502/1 2.2 Dripping test |
| USA | | | | |
| | ASTM C 542 Lock Strip Gaskets (Prüfung nach ASTM C 1192) | 460 x 25 x 13 | 6 | ASTM C 1166 (Lock-Strip Gaskets) |
| | ASTM D 2863 Oxygen-Index-Test | | | ISO 4589 (Oxygenindex, LOI) |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|---------|---|---|------------------------------------|--|
| | | Test specimen form I; for moulding materials 80-150 x 10,0 x 4,0 | 30 | <u>ASTM D 2863</u> <u>ISO 4589-2</u> |
| | | Test specimen form II; for cellular materials 80-150 x 10,0 x 10,0 | 30 | |
| | | Test specimen form III; for sheet materials "as received" 80-150 x 10,0 x <= 10,5 | 30 | |
| | | Test specimen form IV; alternative size for self-supporting moulding or sheet materials, for electrical purposes 70-150 x 6,5 x 3 | 30 | |
| | | Test specimen form V; for flexible film or sheet 140 x 52 x <= 10,5 | 30 | |
| | | Test specimen form VI; for thin film "as received"; limited to the film that can be rolled by the specified rod 140 - 200 x 20 x 0,02 - 0,10 | 30 | |
| | ASTM D 3874-90a Standard Test Method for Ignition of Materials by Hot Wire Sources | Hot Wire Ignition 125 x 12,5 x d 23/50-1ISO 554 (min. 40 h) | 5 | IEC 60695-2-10 (Glow-wire-test) |
| | ASTM D 635 Standard Test Method for Rate of Burning and/or Extent and Time of Burning of plastics in a Horizontal Position Äquivalent zu Methode A der IEC 60695-11-10 | 3 single tests 125 +/-5 mm x 13 +/- 0,5 mm x d 23 +/- 2 °C, 50 +/- 5% rhASTM D 618 (min 48h) | 10 | UL 94 HB (horizontal) <u>UL 94 HB</u> <u>IEC 60695-11-10 (horizontal)</u> <u>Richlinie 97/24/EG</u> <u>Directive 97/24/EC Annex 1</u> <u>Horizontal burning rate</u> <u>IEC 60695-11-10 (horizontal)</u> <u>UL 94 HB</u> |
| | ASTM E 1354 Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter (Cone-Calorimeter) | 100 x 100 x max. 50 (3 samples per irradiance level) 23 +/- 2 °C, 50 +/- 5% rhISO 554 (conditioning to constant mass) | 3 | ISO 5660 (Cone-Calorimeter) |
| | ASTM E 1354 Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter | | | |
| | ASTM E 662 Specific Optical Density of Smoke Generated by Solid Materials | | | ASTM E 662 (NBS - Smoke Box) |

List of available test methods



| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list <i>reference to similar standards</i> |
|---------|--|--|------------------------------------|--|
| | | other materials 75 x 75 x max.25 (per standard: 76,2 x 76,2, +0, - 0,8 mm, x max. 25,4 mm) 3 tests for each mode If the difference between the highest and the lowest value is more than 50%, further tests have to be carried out. 23 +/- 2 °C, 50 +/- 5% rhISO 554 (conditioning to constant mass) flexible foams 75 x 75 x 12,5 3 tests for each mode If the difference between the highest and the lowest value is more than 50%, further tests have to be carried out. | 12 | ASTM E 662 <i>BS 6853 Annex B.2 Area based test method</i> <i>ABD 0031 Chapter 7-3 and 7-4</i> <i>NFPA 258 Smoke Generation of Solid Materials</i> <i>NF X 10-702</i> <i>BS 6401</i> |
| | Boston-Chair-Test | Base upholstery (foam): 450 x 450 x 100 Base upholstery (foam): 450 x 450 x 100 | 3 | DIN 5510-2 (paper-cushion-test), not vandalised |
| | California Technical Bulletin No.117, 2000 Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials Used in Upholstered Furniture (Edition 2000) | Section A: Cellular Materials 305 x 75 x 13 2 x (2x5) Set A: min 25 h 23/50; Set B: 24 h / 104°C, + 6 h 23/50 Section D: Cigarette Resistance Base upholstery (foam): 203 x 183 x 51 mm Base upholstery (foam): 203 x 102 x 51 mm Fabric: 150 x 150 mm | 10 | California-Test 117 Section A, Part I EN 1021-1 (smouldering cigarette) |
| | California Technical Bulletin No.117, 2013, Section 3 Requirements, Test Procedure and Apparatus for Testing the Smolder Resistance of Materials Used in Upholstered Furniture | Requirements, Test Procedure and Apparatus for Testing the Smolder Resistance of Materials Used in Upholstered Furniture - Resilient filling material test 3 single tests, plus 3 additional tests 1 specimen of the first set fails the test Foam: Back: 203 x 203 mm, seat 203 mm x 127 mm, thickness 51 mm Fabric: Back: 203 x 381 mm, Seat: 203 x 203 mm Fabric (Standard Type I cover) can be supplied by test lab 23 ± 3 °C, < 55% r.H. (min. 24h) | 6 | Smolder Resistance of Materials Used in Upholstered Furniture |

List of available test methods

| Country | Standard | Variants Dimensions Conditioning | number of specimens required | reference to the price-list reference to similar standards |
|---------|----------|--|------------------------------------|--|
| | | UL 94 HB 125 +/-5 mm x 13 +/- 0,5 mm x max. 13 mm Smooth edges, radius on the corners max. 1,3 mm (2x3) 23 +/- 2 °C, 50 +/- 5% rhISO 554 (min 48h) | 6 | UL 94 HB ASTM D 635 IEC 60695-11-10 (horizontal) Richtlinie 97/24/EG Directive 97/24/EC Annex 1 Horizontal burning rate <u>IEC 60695-11-10 (horizontal)</u> ASTM D 635 |
| | | HBF / -HF-1/-2 (foams) | | UL 94 HBF /HF-1 /-2 (horizontal, Foam products) |
| | | UL 94 HBF / -HF-1/-2 (foams) 150 x 50 x 6- max. 13 (2x5) unconditioned (2x5) conditioned 23/50-1ISO 554 (48h (+ 70°C 7d)) | 20 | |
| | | V-0/ -1/ -2 | | UL 94 5-V (vertical, sheets and rods) |
| | | Samples tested as received (no drying oven) 125 +/-5 mm x 13 +/- 0,5 mm x max. 13 mm Smooth edges, radius on zhe corners max. 1,3 mm (2x5) unconditioned 23/50,ISO 554 (48h) | 12 | UL 94 V-0/ -1/ -2 DIN EN 60695-11-10 IEC 60695-11-10 (vertikal) ISO 1210 Method B - Determination of afterflame and/or afterglow times on vertical specimens |
| | | Standard: Test of 5 specimens each after conditioning with and without ageing @ 70°C 125 +/-5 mm x 13 +/- 0,5 mm x max. 13 mm Deburred edges, radius max. 1,3 mm (2x5) unconditioned (2x5) conditioned 23/50-1ISO 554 (48h (+ 70°C 7d)) | 25 | |

List of available test methods

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| | |
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| | Netherland |
| ABD 0031 | Europe |
| AS 1530; Part 1 | Australia |
| AS/NZS 3837 | Australia |
| ASTM C 542 | USA |
| ASTM D 2843 | USA |
| ASTM D 2859 | USA |
| ASTM D 2863 | USA |
| ASTM D 3874-90a | USA |
| ASTM D 635 | USA |
| ASTM E 1354 | USA |
| ASTM E 1354 | USA |
| ASTM E 603 | USA |
| ASTM E 648 | USA |
| ASTM E 662 | USA |
| BAM-Methode 10 | |
| Boston-Chair-Test | USA |
| BS 2782 Part 1 | Britan |
| BS 2782 Part 5, Method 508A | |
| BS 415 Part 20.2 | Britan |
| BS 476 Part 4 bzw. Part 11 | Britan |
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| BS 5852 Part 1-6 | Britan |
| BS 6401 | Britan |
| BS 6853 Annex B.1 | Britan |
| BS 6853 Annex B.2 | Britan |
| BS AU 169 | Britan |
| California Technical Bulletin No.117, 2000 | USA |
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| DIN 54836 | Germany |
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| DIN EN 16733 | Germany |
| DIN EN 45545-2 | Europe |
| DIN EN 50267-2-2 | Germany |
| DIN EN 50305 | Germany |
| DIN EN 60695-11-10 | |
| DIN EN 60754-2 (VDE 0482-754-2):2015-08 | Germany |
| DIN EN ISO 15025 | Germany |
| DIN EN ISO 340 | Germany |
| DS / INSTA 410 | Denmark |
| DS 1056 | Denmark |
| DS 1058.2 | Denmark |
| ECE-R 118 | Europe |
| EN 1021 | Europe |
| EN 13823 | Europe |
| EN 32952 | Europe |
| EN 50267-2-2 | Europe |
| EN 6050 A2.4 | Europe |
| EN 60695-2-11 | |
| EN ISO 1182 | Europe |
| EN ISO 11925-2 | Europe |
| EN ISO 9239-1 | Europe |
| FAR/JAR P.25.853 | International |
| FAR/JAR P.25.855 | International |
| FMVSS 302 | USA |
| GB 3464-85 | China |
| GB 8625-88 | China |
| GB 8626-88 | China |
| IEC 60065 | International |
| IEC 60695 | International |
| IEC 60695-11-10 (horizontal) | International |
| IEC 60695-11-10 (vertikal) | International |
| IEC 754-1/2 | International |
| IEC 950 | International |
| IMO (Res.A.472(XII)) | International |
| IMO Res. A 688 (17) | International |
| ISO 10351 | International |
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| ISO 1716 | International |
| ISO 3582 | International |
| ISO 3795 | International |
| ISO 4589-2 | International |
| ISO 5657 | International |
| ISO 5658-2 | International |
| ISO 5659-2 | International |
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| ISO 5660-2 | |
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| NES 714 | Britan |
| NF EN 11925-2 | France |
| NF F 16-101 | France |
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| NF X 70-100 | France |
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| NT Fire 004 | Skandinavia |
| NT Fire 013 | Skandinavia |
| NT Fire 014 | Skandinavia |
| NT Fire 033 | Skandinavia |
| ÖNORM B 3800 (Entw.Beibl.) | Austria |
| PV 3357 | Germany |
| Richtlinie 95/28/EG - Directive 95/28/EC | Europe |
| Richtlinie 97/24/EG | Europe |
| Schweizer Richtlinien (SIA 183/2) | Switzerland |
| Schweizer Wegleitung | Switzerland |
| SIS 024823 | Sweden |
| U.T.A.C St 18-502/1 | France |
| U.T.A.C. St 18-502/2 | France |
| UIC 564.2 | International |
| UIC Kodex 564-2 | International |
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| UNE 23-721 | Spain |
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| VDE 0345 | Germany |
| VDE 0471 | Germany |
| VDE 0730, Teil 2 | Germany |
| Volvo Standard 104-0001 | Sweden |