



D-LAB

# Specifications

Your Partner for textile testing  
and quality assurance



D-LAB is your neutral partner for reliable quality management and evaluation in all textile areas. Producers of home textiles, furnishing fabrics, clothing, technical fabrics, as well as specialty retailers profit from our many years of experience in the field of textile production and evaluation.

D-LAB is your partner in monitoring product properties as well as for the creation of item specifications.

D-LAB tests the products and product data from your supplier and helps in the case of a high complaint rate.

D-LAB offers you its extensive technical laboratory, physical and chemical testing, and will issue the reports accordingly.

**D-LAB is equipped with the most modern measuring and testing machines and offers, amongst many other tests, the following:**

- ▶ burning behaviour
- ▶ abrasion resistance
- ▶ pilling
- ▶ tear strength and seam slippage resistance
- ▶ permeability of fabrics to air or water
- ▶ behaviour of dimensional change
- ▶ colour fastness

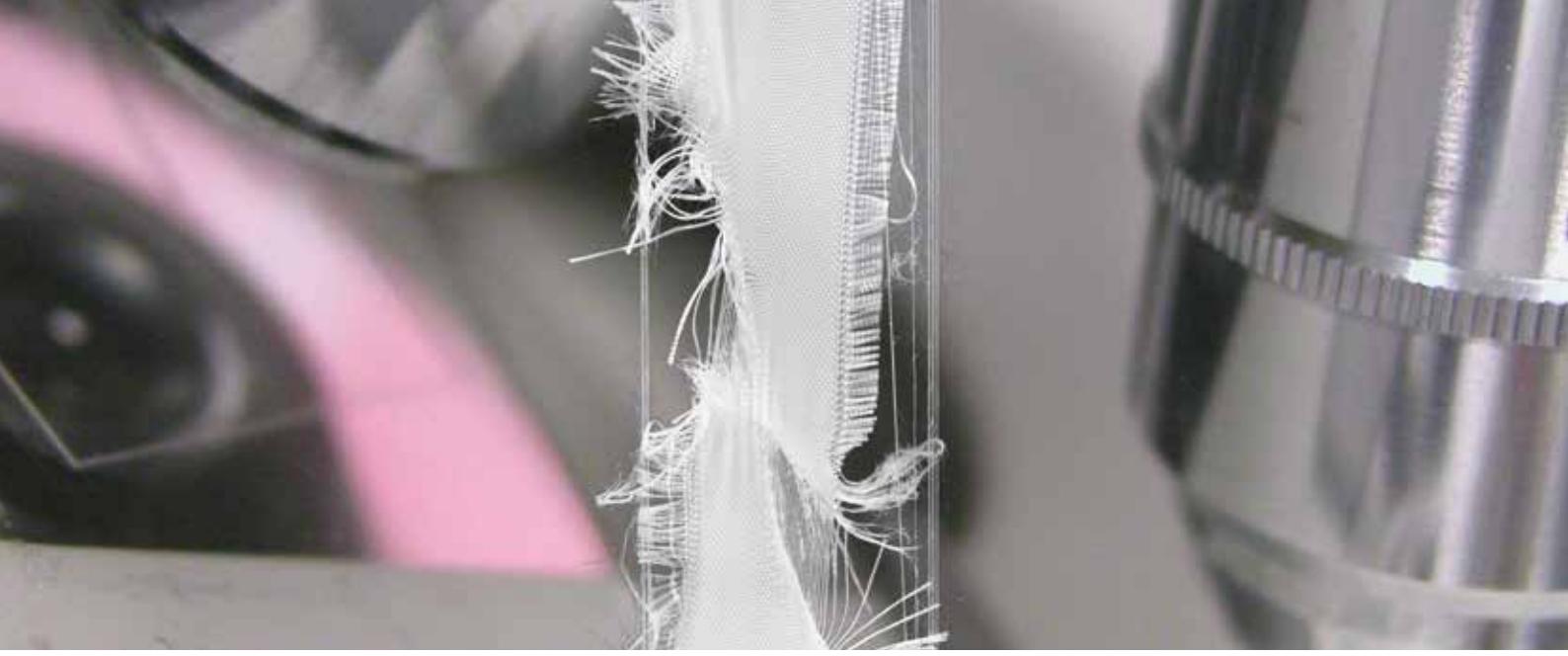
**Our services at a glance:**

- ▶ physical evaluations
- ▶ chemical evaluations
- ▶ elaborate consultation
- ▶ issuing of product specifications
- ▶ issuing of test reports
- ▶ training / seminars

Accredited according to DIN EN ISO/IEC 17025:2005

The accreditation applies for the methods listed in the annex to the certificate D-PL-17323-01-00.

Certified according to DIN EN ISO 9001:2008



## Fibres | Threads

Testings	Price	Sample size	Note
Determination of linear density of single and plied yarns – short length method DIN 53830-3	19,00 €	40cm x 40cm	
Determination of linear density of elasto-yarns and core spun yarns – short length method DIN 53830-4	45,00 €	40cm x 40cm	
Determination of linear density by the rope method DIN EN ISO 2060	10,00 €	1 Coil	
Filament count (up to 150 filaments for each yarn)	22,00 €	10m	
Filament count (more than 151 filaments for each yarn)	39,00 €	10m	
Determination of single-end breaking force & elongation at break DIN EN ISO 2062	38,00 €	1 Coil	
Determination of twist in yarns DIN EN ISO 2061	38,00 €	1 Coil	
Yarn types (staple fibre, filament yarn)	10,00 €	DIN A4 or yarn section	
Yarn types (ring-spun yarn, open-end yarn, worsted, carded, etc.)	10,00 €	DIN A4 or yarn section	
Yarn construction (single yarn, composite yarn, etc.)	12,00 €	DIN A4 or yarn section	
Testing of fibre cross section	25,00 €	DIN A5 or yarn section	
Fibre melting point according to koflerbank (up to 260°C) D-LAB Standard	35,00 €	DIN A5 or yarn section	
Determination of fibre length D-LAB Standard	139,00 €	DIN A4 or yarn section	
Knot tensile test for single and plied yarns DIN 53842-1	35,00 €	1 Coil	
Loop test for single and plied yarns DIN 53843-1	35,00 €	1 Coil	
Yarn – boil shrinkage D-LAB Standard	19,00 €	10m	
Yarn – dry air shrinkage D-LAB Standard	19,00 €	10m	
Cold water shrinkage for textured yarn D-LAB Standard	25,00 €	10m	
Intermingling point D-LAB Standard	25,00 €	3m	
Determination of the evenness of yarns D-LAB Standard	25,00 €	1 Coil	



## Fabrics | Woven and knitted Design features

Testings	Price	Sample size	Note
Weaves, determination of fabric construction DIN 61101-1	Volume of effort	DIN A4	
Determination of width and length DIN EN 1773	6,00 €	1m x total width	
Area weight DIN EN 12127	10,00 €	1m x total width	Accredited test
Test method for nonwovens – determination of mass per unit area DIN EN 29073-1	10,00 €	1m x total width	
Determination of number of threads per unit length – warp DIN EN 1049-2	10,00 €	40cm x 40cm	
Determination of number of threads per unit length – weft DIN EN 1049-2	10,00 €	40cm x 40cm	
Determination of number of stitches per unit length and unit area DIN EN 14971	10,00 €	40cm x 40cm	
Contraction of yarns in fabrics D-LAB Standard	36,00 €	DIN A4	
Determination of thickness of textiles and textile products DIN EN ISO 5084	10,00 €	20cm x total width	

## Fabrics | Woven and knitted Strength tests

Testings	Price	Sample size	Note
Tear strength, strip method DIN EN ISO 13934-1	39,00 €	1m x total width	Accredited test
Tear strength, grab method DIN EN ISO 13934-2	39,00 €	1m x total width	
Tear strength (fabrics coated with rubber or plastics) DIN EN ISO 1421	39,00 €	1m x total width	Accredited test
Determination of tensile properties – for roof waterproofing DIN EN 12311-1	49,00 €	1m x total width	
Determination of tensile properties – for roof waterproofing DIN EN 12311-2, Process A	49,00 €	1m x total width	
Determination of force and elongation, strip method ASTM D 5035-95	34,00 €	1m x total width	
Seam slippage resistance DIN EN ISO 13936-2	49,00 €	1m x total width	Accredited test
Seam tensile properties of fabrics and made-up textile articles DIN EN ISO 13935-1	49,00 €	1 article of clothing 1m x total width	
Seam tensile properties of fabrics and made-up textile articles – grab method DIN EN ISO 13935-2	49,00 €	1 article of clothing 1m x total width	
Tear properties of fabrics – trouser-shaped test DIN EN ISO 13937-2	49,00 €	1m x total width	Accredited test
Tear properties of fabrics – wing-shaped test DIN EN ISO 13937-3	39,00 €	1m x total width	Accredited test

Testings	Price	Sample size	Note
Tear properties of fabrics – trapezoid test DIN 53859-5	39,00 €	1m x total width	Accredited test
Tear properties of fabrics – tongue-shaped DIN EN ISO 13937-4*	59,00 €	1m x total width	
Tear properties of fabrics – testing of plastics films – trapezoidal test DIN 53363	49,00 €	1m x total width	
Tear properties of fabrics – testing of artificial leather DIN 53356	49,00 €	1m x total width	
Tear properties of fabrics – rubber or plastic-coated fabrics – tongue-shaped DIN EN ISO 4674-1 Process A	39,00 €	1m x total width	
Tear properties of fabric ASTM D 2261 - 96	33,00 €	50cm x total width	
Tear properties of fabric – nonwoven DIN EN ISO 9073-4	39,00 €	1m x total width	
Tear properties of fabric - wing-shaped test AS 2001.2.10	39,00 €	1m x total width	
Tear strength, artificial leather DIN 53354	39,00 €	1m x total width	
Blocking resistance DIN EN ISO 25978	39,00 €	1m x total width	
Determination of coating adhesion DIN EN ISO 2411	59,00 €	1m x total width	
Delamination of fusible interlinings from upper fabric, mechanical delamination test – DIN 54310*	33,00 €	1m x total width	
Explanation of the yarn pulling out resistance D-LAB-Standard	39,00 €	1m x total width	
Surgical dressings – elongation DIN 61632*	33,00 €	1m x total width	
Determination of the elongation under load and the residual deformation DIN EN 15977	33,00 €	1m x total width	
Protective clothing: limited flame spread materials, material assemblies and clothing – DIN EN ISO 14116	110,00 €	1m x total width	

## Fabrics | Woven and knitted Performance characteristics

Testings	Price	Sample size	Note
Abrasion resistance – Martindale: specimen breakdown DIN EN ISO 12947-2	30,00 €	30cm x total width	
Abrasion resistance – Martindale: specimen breakdown DIN EN ISO 12947-2 further 5.000 revs.	6,00 €		
Abrasion resistance – Martindale: determination of mass loss DIN EN ISO 12947-3	80,00 €	30cm x total width	
Abrasion resistance – Martindale: assessment of appearance change DIN EN ISO 12947-4	65,00 €	30cm x total width	
Pilling test – Martindale DIN EN ISO 12945-2 (up to 1.000 revs.)	25,00 €	30cm x total width	
Pilling test – Martindale DIN EN ISO 12945-2 (2.000 revs.)	27,00 €	30cm x total width	
Pilling test – Martindale DIN EN ISO 12945-2 (5.000 revs.)	39,00 €	1m x total width	
Pilling test – Martindale DIN EN ISO 12945-2 (each further 1.000 revs.)	6,00 €		
Pilling test – Pilling box method DIN EN ISO 12945-1	39,00 €	30cm x total width	
Dimensional change in washing and drying DIN EN ISO 6330 + DIN EN ISO 5077 + DIN EN ISO 3759	25,00 €	70cm x 70cm	Accredited test
Dimensional change – hand wash D-LAB Standard	25,00 €	70cm x 70cm	

\*in accordance



Testings	Price	Sample size	Note
Dimensional change – ironing DIN 53894-1* + DIN EN ISO 3759	19,00 €	70cm x 70cm	
Additional ironing and measure D-LAB Standard	9,00 €		
Dimensional change – dry cleaning, professional care DIN EN ISO 3175-1* + DIN EN ISO 3759	27,00 €	70cm x 140cm	
Dimensional change – cold water D-LAB Standard	19,00 €	70cm x 70cm	
Dimensional change – dry air D-LAB Standard	29,00 €	70cm x 70cm	
Determination of the permeability of fabrics to air DIN EN ISO 9237	16,00 €	50cm x total width	
Hydrostatic pressure test DIN EN 20811 (up to 2.000 mbar)	49,00 €	1m x total width	
Hydrostatic pressure test AATCC 127 (up to 2.000 mbar)	49,00 €	1m x total width	
Spray test – resistance to surface wetting DIN EN ISO 4920	19,00 €	50cm x total width	
Spray test AATCC 22	19,00 €	50cm x total width	
Oil resistance DIN EN ISO 14419	18,00 €	40cm x 30cm	
Oil repellency – hydrocarbon resistance test AA TCC-Test 118	18,00 €	40cm x 30cm	
Absorbency Drop test TEGEWA	30,00 €	DIN A4	
Material distortion DIN EN ISO 13015*	15,00 €	50cm x total width	
Transverse distortion AATCC 179*	35,00 €	1,5m x total width	

\*in accordance



Testings	Price	Sample size	Note
Determination of suction speed DIN 53924	35,00 €	50cm x total width	
Determination of crease resistance – dry sample DIN 53890	20,00 €	20cm x total width	
Electrostatic behaviour DIN 54345-1	62,00 €	50cm x total width	Testing by partner laboratories
Detection of optical brighteners by means of UV light D-LAB Standard	15,00 €	1 test item	
Urine resistance D-LAB Standard	25,00 €	DIN A4	
Permanent bending strength – Flexometer method DIN EN ISO 32100	from 35,00 €	30cm x total width	
Antiseptic resistance D-LAB Standard	50,00 €	30cm x total width	
Washing DIN EN ISO 6330	15,00 €		Accredited test
Drum drying	10,00 €		
Dry cleaning (1x) up to 1kg	12,00 €		
Dry cleaning (1x) more than 1kg	39,00 €		
Hydrolysis   7 days	129,00 €		
Hydrolysis   14 days	229,00 €		
Hydrolysis   21 days	329,00 €		

\*in accordance



## Fabrics | Woven and knitted Fire testing

Testings	Price	Sample size	Note
– Upholstered furniture			
Flammability of upholstered furniture – smouldering cigarette DIN EN 1021-1	79,00 €	1,5m x total width	Accredited test
Flammability of upholstered furniture – match flame equivalent DIN EN 1021-2	79,00 €	1,5m x total width	Accredited test
BS 5852 source 0 (smouldering cigarette)	79,00 €	3m x total width	Accredited test
BS 5852 source 1 (match flame equivalent 20 sec)	79,00 €	3m x total width	Accredited test
BS 5852 source 2 (match flame equivalent 40 sec)	79,00 €	3m x total width	Accredited test
BS 5852 source 3 (match flame equivalent 70 sec)	79,00 €	3m x total width	Accredited test
BS 5852 source 5 (wooden crib)	119,00 €	3m x total width	Accredited test
Classification of the burning behavior of upholstered composites DIN 66084 (Class P-c, DIN EN 1021-1)	79,00 €	1,5m x total width	Accredited test
Classification of the burning behavior of upholstered composites DIN 66084 (Class P-b, DIN EN 1021-1/2)	158,00 €	3m x total width	Accredited test
BS 7176 low hazard (DIN EN 1021-1/2)	158,00 €	3m x total width	
BS 7176 medium hazard (DIN EN 1021-1/2, BS 5852 crib 5)	237,00 €	5m x total width	
Flammability of upholstered furniture ISO 8191-2 (match flame equivalent 20 sec)	79,00 €	1,5m x total width	



Testings	Price	Sample size	Note
<b>– Bedding</b>			
Assessment of the flammability of bedding items – ignition source: smouldering cigarette DIN EN ISO 12952-1	89,00 €	1 test item	
Assessment of the flammability of bedding items – ignition source: match-flame equivalent DIN EN ISO 12952-2	89,00 €	1 test item	
Burning behaviour of bedding items – classification scheme DIN EN 14533 (for DIN EN ISO 12952-1/2)	169,00 €	2 test items	
Assessment of the flammability of mattresses and upholstered bed boards DIN EN 597-1 (smouldering cigarette)	79,00 €	2m x total width	
Assessment of the flammability of mattresses and upholstered bed boards DIN EN 597-2 (gas flame)	79,00 €	2m x total width	
Assessment of the flammability of duvets and pillows BS 6807 source 2 (match flame equivalent 40 sec)	119,00 €	3m x total width	
Assessment of the flammability of duvets and pillows BS 6807 source 3 (match flame equivalent 70 sec)	119,00 €	3m x total width	
Assessment of the flammability of duvets and pillows BS 6807 source 5 (wooden crib 5)	119,00 €	3m x total width	
Assessment of the flammability of duvets and pillows BS 7175 source 0 (cigarette test)	119,00 €	3m x total width	
Assessment of the flammability of duvets and pillows BS 7175 source 1 (match flame equivalent 20 sec)	119,00 €	3m x total width	
Assessment of the flammability of duvets and pillows BS 7175 source 2 (match flame equivalent 40 sec)	119,00 €	3m x total width	
Assessment of the flammability of duvets and pillows BS 7175 source 3 (match flame equivalent 70 sec)	119,00 €	3m x total width	
Assessment of the flammability of duvets and pillows BS 7175 source 5 (wooden crib 5)	119,00 €	3m x total width	
BS 7177 low hazard (DIN EN 597-1/2)	158,00 €	2,5m x total width	
BS 7177 medium hazard (DIN EN 597-1/2 + BS 6807 crib 5)	277,00 €	5m x total width	

Testings	Price	Sample size	Note
<b>– Curtains and drapes</b>			
Burning behaviour – curtains and drapes DIN EN 13773 incl. DIN EN 1101 + DIN EN 1102 or DIN EN 13772	from 599,00 €	2,5m x total width	Accredited test
Burning behaviour: curtains and drapes DIN EN 13772	179,00 €	2m x total width	Accredited test
Fire testing for curtains, drapes and blinds BS 5867 Part 2 Type B	258,00 €	2,5m x total width	
<b>– Protective clothing</b>			
Protective clothing – protection against heat and flames – method of testing for limited spreading of flames DIN EN ISO 15025 (replaced: DIN EN 532)	129,00 €	2m x total width	Accredited test
Protective clothing – Thermal requirements: protection against heat and flames with limited propagation of flames DIN EN ISO 14116 (replaced: DIN EN 533)	318,00 €	2m x total width	Accredited test
<b>– Textiles and textile products</b>			
Burning behaviour – determination of inflammability of vertically oriented specimens DIN EN ISO 6940	129,00 €	2m x total width	Accredited test
Burning behaviour – measurement of flame spreading properties of vertically oriented specimens DIN EN ISO 6941	95,00 €	2m x total width	Accredited test
Burning behaviour – clothing textile DIN EN ISO 6941 + DIN EN 1103	250,00 €	2m x total width	Accredited test
Burning behaviour of industrial and technical textiles DIN EN 1624	95,00 €	2m x total width	
Burning behaviour of industrial and technical textiles DIN EN 1625	129,00 €	2m x total width	
Flammability of products subjected to direct impingement of flame – single-flame source test DIN EN ISO 11925-2	235,00 €	1,5m x total width	
Burning behaviour: construction materials, edge ignition DIN 53438-2*	129,00 €	1m x total width	
Burning behaviour: construction materials DIN 53438-3* (surface ignition)	129,00 €	1m x total width	
Insulation material – behaviour when flaming with a burner PV 3357* (edge ignition)	129,00 €	1,5m x total width	
Safety of toys – flammability (up to 50 cm) DIN EN 71-2	159,00 €	3 Test items	
Fire behaviour of building materials and components DIN 4102-1 B2	129,00 €	1m x total width	
<b>– Car-interior trim</b>			
Burning behaviour of materials inside motor vehicles DIN 75200	50,00 €	1m x total width	Accredited test
Burning behaviour of materials inside motor vehicles FMVSS 302*	50,00 €	1m x total width	
Burning behaviour: car-interior trim ISO 3795*	50,00 €	1m x total width	
<b>– IMO 2010</b>			
2010 FTP Code IMO Part 7 – Test for vertically supported textiles and films Resolution MSV.307(88) (comparable with DIN EN ISO 6940/41; DIN EN 1101/02)	129,00 €	2m x total width	
2010 FTP Code IMO Part 8 – Test for upholstered furniture Resolution MSV.307(88) (comparable with BS 5852-1; ISO 8191-1/2; EN 1021-1/2)	158,00 €	3m x total width	
2010 FTP Code IMO Part 8 – Test for bedding components Resolution MSV.307(88) (comparable with DIN EN 597-1/2)	169,00 €	2 Test items	

\*in accordance



## Fire behavior of building materials and components DIN 4102-1

To qualify as **Bulding material B1 (flame resistant material)**, the requirements of “Kleinbrennerprüfung” B2 in compliance with DIN 4102-1 and the fire shaft test B1 in compliance with DIN 4102-16 must be met.

Specifications	Price	Sample size	Note
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### Orienting tests

<b>Building material classification B2</b> Flammability test acc. DIN 4102-1 “Kleinbrennerprüfung”	129,00 €	1,5 m <sup>2</sup>	Flame applied to edge and surface of the sample, sample preparation is included
<b>Building material classification B1 orienting</b> “Kleinbrennerprüfung” B2 acc. DIN 4102-1 and 1x fire shaft test B1 acc. DIN 4102-16	543,00 €	6 m <sup>2</sup>	“Kleinbrennerprüfung”: Flame applied to edge and surface of the sample, 1x fire shaft test B1, sample preparation is included

### Tests for the classification of B1 “hardly flammable”

<b>Building material classification B1</b> “Kleinbrennerprüfung” B2 acc. DIN 4102-1 and 1x fire shaft test B1 acc. DIN 4102-16	543,00 €	6 m <sup>2</sup>	“Kleinbrennerprüfung”: Flame applied to edge and surface of the sample, as for the first fire shaft test B1 in a sequence of tests, sample preparation is included
<b>Building material classification B1</b> fire shaft test B1 acc. DIN 4102-16	350,00 €	2 m <sup>2</sup>	For each further fire shaft test in a sequence of tests, depending on the material, tests may vary, sample preparation is included
<b>Building material classification B1 independent of the colour</b> Pretest “Kleinbrennerprüfung” B2 acc. DIN 4102-1 and fire shaft test B1 acc. DIN 4102-16	nach Aufwand	6 m <sup>2</sup> pro Farbe	Sequence of test for materials in several colours
Testreport in German	45,00 €		
Testreport in English	145,00 €		

## Tests of colour fastness

Testings	Price	Sample size	Note
Colour fastness to rubbing (dry) DIN EN ISO 105-X12	12,00 €	DIN A4	Accredited test
Colour fastness to rubbing (wet) DIN EN ISO 105-X12	12,00 €	DIN A4	Accredited test
Colour fastness to rubbing (organic solvents) DIN EN ISO 105-D02	15,00 €	DIN A4	
Colour fastness to hot pressing (damp) DIN EN ISO 105-X11	15,00 €	DIN A4	
Colour fastness to hot pressing (dry) DIN EN ISO 105-X11	15,00 €	DIN A4	
Colour fastness to hot pressing (wet) DIN EN ISO 105-X11	15,00 €	DIN A4	
Colour fastness to dry cleaning DIN EN ISO 105-D01	14,00 €	DIN A4	Accredited test
Colour fastness to organic solvents DIN EN ISO 105-X05	19,00 €	DIN A4	
Colour fastness to bleaching – hypochlorite DIN EN 20105-N01	25,00 €	DIN A4	
Colour fastness to bleaching – hypochlorite (mild) DIN 54034	55,00 €	DIN A4	
Colour fastness to bleaching – peroxide DIN EN ISO 105-N02	25,00 €	DIN A4	
Colour fastness to spotting – acid DIN EN ISO 105-E05	25,00 €	DIN A4	
Determination of colour fastness of articles for common use – test with artificial saliva DIN 53160-1	25,00 €	DIN A4	
Determination of colour fastness of articles for common use – test with artificial sweat DIN 53160-2	25,00 €	DIN A4	
Colour fastness to perspiration (alkaline and acid) DIN EN ISO 105-E04	35,00 €	DIN A4	Accredited test
Colour fastness to spotting – alkali DIN EN ISO 105-E06	25,00 €	DIN A4	
Colour fastness to mercerizing DIN EN ISO 105-X04	25,00 €	DIN A4	
Colour fastness to hot water DIN EN ISO 105-E08	15,00 €	DIN A4	
Colour fastness to chlorinated water DIN EN ISO 105-E03	25,00 €	DIN A4	
Colour fastness to sea water DIN EN ISO 105-E02	25,00 €	DIN A4	Accredited test
Colour fastness to water DIN EN ISO 105-E01	25,00 €	DIN A4	Accredited test
Colour fastness to spotting: water DIN EN ISO 105-E07	15,00 €	DIN A4	Accredited test
Colour fastness to spotting: water – leather DIN EN ISO 15700	12,00 €	DIN A4	
Colour fastness to washing – 40°C; 50°C; 60°C; 95°C (soap) DIN EN ISO 105-C10	25,00 €	DIN A4	Accredited test
Colour fastness to domestic & commercial laundering – 40°C; 50°C; 60°C; 70°C; 95°C (detergent) DIN EN ISO 105-C06	25,00 €	DIN A4	Accredited test
Colour fastness to domestic and commercial laundering (using a non-phosphate reference detergent) DIN EN ISO 105-C08	22,00 €	DIN A4	
Colour fastness to domestic and commercial laundering – Oxidative bleach (using a non-phosphate reference detergent) DIN EN ISO 105-C09	25,00 €	DIN A4	

Testings	Price	Sample size	Note
Lightfastness DIN EN ISO 105-B02 (up to note 6)	79,00 €	7cm x 5 cm	Accredited test
Lightfastness DIN EN ISO 105-B02 (up to note 7)	397,50 €	7cm x 5 cm	Accredited test
Detection and determination of photochromism DIN EN ISO 105-B05*	75,00 €	DIN A4	
Lightfastness of textiles moistened with artificial sweat DIN EN ISO 105-B07	115,00 €	DIN A4	

## Colour assessments

Testings	Price	Sample size	Note
Grey scale for assessing change in colour DIN EN 20105-A02	15,00 €		
Grey scale for assessing staining DIN EN 20105-A03	15,00 €		



## Analytical tests Textile chemical analysis

Testings	Price	Sample size	Note
MAK Amines – Azodyes	69,00 €	DIN A4	Testing by partner laboratories
Detection of disperse dye – allergenic and carcinogenic DIN 54231	119,00 €	DIN A4	Testing by partner laboratories
Determination of formaldehyde DIN EN ISO 14184-1	65,00 €	DIN A4	Testing by partner laboratories
Formaldehyde – determination qualitative “Tüpfeltest”	15,00 €	DIN A4	
Determination of chromium(VI) content DIN EN ISO 17075	55,00 €	DIN A4	Testing by partner laboratories
Odour characteristics of trim materials in motor vehicles VDA 270	40,00 €	50cm x total width	
Odour characteristics D-LAB Standard	49,00 €	100 ml	

\*in accordance



Testings	Price	Sample size	Note
Determination of pH aqueous solvents	8,00 €	100ml	
Determination of pH aqueous extract DIN EN ISO 3071	25,00 €	DIN A4 10g	
Determination of sizing content DIN 54285	70,00 €	DIN A4 20g	
Determination of materials soluble in organic solvents DIN 54278-1	70,00 €	40g	
Alkylphenols (Octylphenol and nonylphenol)	75,00 €	DIN A4 5g	Testing by partner laboratories
Alkylphenol ethoxylates (Octylphenol ethoxylates and nonylphenol ethoxylates)	75,00 €	DIN A4 5g	Testing by partner laboratories
Detection of dimethylformamide (DMF)	105,00 €	DIN A4 5g	Testing by partner laboratories
Polycyclic aromatic hydrocarbons (PAK`s)	150,00 €	DIN A4 5g	Testing by partner laboratories
Detection of organic tin compounds	80,00 €	DIN A4 5g	Testing by partner laboratories

### Analytical tests Fibre quality verification

Testings	Price	Sample size	Note
Bast fibres	20,00 €	DIN A5	
Cotton	12,00 €	DIN A5	
Cellulose fibres	16,00 €	DIN A5	
Leather, artificial leather	25,00 €	DIN A5	
Elastane	8,00 €	DIN A5	
Microfibres	12,00 €	DIN A5	
Silk	16,00 €	DIN A5	
Synthetic fibres	25,00 €	DIN A5	
Wool	12,00 €	DIN A5	

## Analytical tests Quantitative fibre analysis, separation of binary mixtures

Testings	Price	Sample size	Note
Mechanical separation DIN EN ISO 1833-1 (Annex B)	Volume of effort	DIN A4	
Quantitative chemical analysis – Ternary fibre mixtures DIN EN ISO 1833-2	Volume of effort	DIN A4	
Mixtures of acetate and certain other fibres (method using acetone) DIN EN ISO 1833-3	75,00 €	DIN A4	
Mixtures of certain protein and certain other fibres (method using hypochlorite) DIN EN ISO 1833-4	69,00 €	DIN A4	
Mixtures of viscose or certain types of cupro or modal or lyocell and cotton fibres (method using formic acid and zinc chloride) DIN EN ISO 1833-6	75,00 €	DIN A4	
Mixtures of polyamide and certain other fibres (method using formic acid) DIN EN ISO 1833-7	75,00 €	DIN A4	
Mixtures of acetate and triacetate fibres - method using acetone DIN EN ISO 1833-8	115,00 €		
Mixtures of triacetate or polylactide and certain other fibres (method using dichloromethane) DIN EN ISO 1833-10	75,00 €	DIN A4	
Mixtures of cellulose and polyester fibres – method using sulfuric acid DIN EN ISO 1833-11	75,00 €	DIN A4	
Mixtures of acrylic (method using dimethylformamide) DIN EN ISO 1833-12	90,00 €	DIN A4	
Mixtures of acetate and certain chlorofibres (method using acetic acid) DIN EN ISO 1833-14	75,00 €	DIN A4	
Mixtures of polypropylene fibres and certain other fibres (method using xylene) DIN EN ISO 1833-16	75,00 €	DIN A4	
Mixtures of silk and wool or hair (method using sulfuric acid) DIN EN ISO 1833-18	75,00 €	DIN A4	
Mixtures of elastane and certain other fibres – method using dimethylacetamide – DIN EN ISO 1833-20	115,00 €		
Quantitative analysis of binary mixtures, wool with other fibres, potassium hydroxide solution method DIN 54204	75,00 €	DIN A4	
Quantitative analysis of binary mixtures, polyamide 6.6 or polyamide 6 fibres with other fibres, hydrochloric acid method DIN 54221	70,00 €	DIN A4	

## Quality inspection to furniture fabrics according to DIN EN 14465

Testings	Price	Sample size	Note
Tear strength – strip method DIN EN ISO 13934-1	39,00 €	1m x total width	Accredited test
Tear properties of fabrics – wing-shaped test DIN EN ISO 13937-3	39,00 €	1m x total width	Accredited test
Seam slippage resistance DIN EN ISO 13936-2	49,00 €	1m x total width	Accredited test
Abrasion resistance – Martindale: specimen breakdown DIN EN ISO 12947-2 (up to 5.000 revs.)	30,00 €	30cm x total width	
Abrasion resistance – Martindale: specimen breakdown DIN EN ISO 12947-2 (further 5.000 revs.)	6,00 €		
Pilling test – Martindale DIN EN ISO 12945-2 (2.000 revs.)	27,00 €	30cm x total width	
Colour fastness to artificial light: xenon arc fading lamp DIN EN ISO 105-B02 (up to note 6)	79,00 €	7cm x 5cm	Accredited test
Colour fastness to rubbing (dry) DIN EN ISO 105-X12	12,00 €	DIN A4	Accredited test
Colour fastness to rubbing (wet) DIN EN ISO 105-X12	12,00 €	DIN A4	Accredited test



## Leather

Testings	Price	Sample size	Note
Fibre qualitative analysis: leather, artificial leather	25,00 €	DIN A5	
Colour fastness to artificial light – xenon arc fading lamp – leather DIN EN ISO 105-B02 (up to note 6)	79,00 €	7cm x 5cm	Accredited test
Colour fastness to rubbing (dry) DIN EN ISO 11640*	15,00 €	DIN A4	
Colour fastness to rubbing (wet) DIN EN ISO 11640*	18,00 €	DIN A4	
Colour fastness to rubbing with alkaline perspiration-solvence DIN EN ISO 11640*	18,00 €	DIN A4	
Colour fastness to organic solvents – leather DIN EN ISO 11643	19,00 €	DIN A4	
Colour fastness to perspiration (alkaline and acid) DIN EN ISO 11641	35,00 €	DIN A4	
Colour fastness to water DIN EN ISO 11642	15,00 €	DIN A4	
Colour fastness to spotting: water – leather DIN EN ISO 15700	12,00 €	DIN A4	
Colour fastness to mild washing DIN EN ISO 15703	22,00 €	DIN A4	
Colour fastness to machine washing DIN EN ISO 15702	22,00 €	DIN A4	
Determination of tear load – single edge tear DIN EN ISO 3377-1	35,00 €	cowhide	
Determination of tear load – double edge tear DIN EN ISO 3377-2	35,00 €	cowhide	
Determination of chromium(VI) content DIN EN ISO 17075	55,00 €	10 cm x 20 cm	Testing by partner laboratories
Determination of pH DIN EN ISO 4045*	25,00 €	DIN A4	

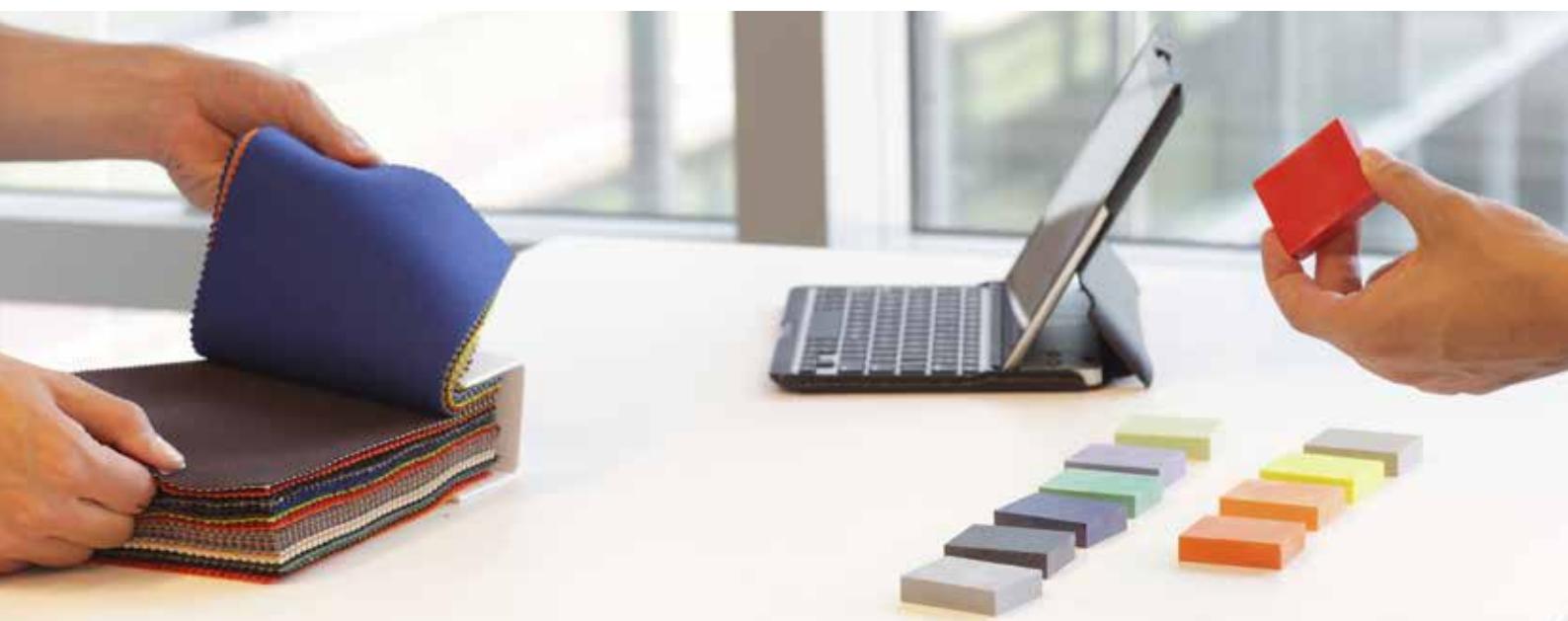
## Clothing tests

Testings	Price	Sample size	Note
Size designation of clothes DIN EN 13402-1 / -2 / -3	Volume of effort	1 article of clothing	
Processing tests of articles for the clothing industry D-LAB Standard	Volume of effort	1 article of clothing	
Dimensional change in washing and drying DIN EN 6330 + DIN EN ISO 5077 + DIN EN ISO 3759	35,00 €	1 article of clothing	Accredited test
Dimensional change – dry cleaning, professional care DIN EN ISO 3175-1* + DIN EN ISO 3759	35,00 €	1 article of clothing	
Additional ironing and measuring of clothes D-LAB Standard	9,00 €	1 article of clothing	
Care labelling code using symbols DIN EN ISO 3758 and instructions	Volume of effort	1 article of clothing	
Burning behaviour of clothes DIN EN ISO 6941 + DIN EN 1103	250,00 €	2m x total width	Accredited test
Protective clothing – protection against heat and flames – limited flame spreading materials, material assemblies and clothing DIN EN ISO 14116 (replaced: DIN EN 533)	318,00 €	2m x total width	Accredited test
Protective clothing – protection against heat and flames – method of testing for limited flame spreading DIN EN ISO 15025 (replaced: DIN EN 532)	129,00 €	2m x total width	Accredited test

\*in accordance

## Technical delivery conditions

Testings	Price	Sample size	Note
Technical delivery conditions – polyamide fabrics for bags TL 8305-0186 Version 4	Volume of effort		
Technical delivery conditions – polyamide-linings (Serge) TL 8305-0263 Version 4	Volume of effort		
Technical delivery conditions – single side coated and rubberized fabrics for backpacks and bags TL 8305-0278 (A1-A7, B1-B7, D1-D7, E1-E4, I1-I7)	Volume of effort		
Technical delivery conditions – determination of water vapour transmission; containing compounds 3-layers-laminate for clothes TL 8305-0287 Version 5	Volume of effort		
Technical delivery conditions – 3 colour-camouflage print from the Bundeswehr TL 8305-0297 Version 5	Volume of effort		
Technical delivery conditions – Bundeswehr desert-camouflage TL 8305-0334 Version 1	Volume of effort		



## Miscellaneous

Contents	Price
General testing per hour (fabric analysis, microscopy, micro-pictures, other)	50,00 €
Consultations that go beyond our existing range of services (e. g. research work)	200,00 €
Consulting per hour, engineer	100,00 €
Consulting per hour, laboratory technician	69,00 €
Investigation report	15,00 €
Preparation of a test report (English)	75,00 €
Preparation of a test report according to DIN 4102-1 (German)	45,00 €
Preparation of a test report according to DIN 4102-1 (English)	145,00 €
Surcharge for urgent orders	30,00 €
Postage costs	7,00 €

The index listed above, shows a price indication of our specified standard services. Further evaluations are available upon request.

Binding prices are obtained when a quote is issued according to the individual extent of testing. These are based on type of evaluation, specimen preparation, form of analysis and frequency of testing. The above listed examinations do not include the issuing of test reports. The costs for interpreting test results are established based on the extent of work involved.

The General Terms and Conditions of DELCOTEX Delius Techtex GmbH & Co. KG are applicable (see [www.textillabor.eu](http://www.textillabor.eu)). All prices are per sample and are subject to an additional 19% VAT. The price list is valid as of 01.01.2017 and replaces all previous price lists.

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