Materials, surfaces, colors

m

Sustainability and responsibility:

Environmentally-friendly production for efficient resource consumption.

When manufacturing our furniture, VS focuses on saving resources and reducing our environmental footprint. We continuously invest in optimizing our processes through the use of state-of-the-art equipment and technology. This increases the efficiency of our materials usage and improves environmental influences such as the energy and waste-water balance. 90% of wood-waste from production is used to generate renewable energies within the company. Our responsible approach permeates every aspect of our activities - from product development to the return of end-of-life products to the material cycle. At VS, a complex environmental and energy management system contributes to continuous improvements in resource efficiency, minimizing emissions.

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Boards.

Materials for tabletops and cabinet-type units.

For cabinet-type units and tabletops, VS uses chipboard panels (LIGNOpal), compressed solid core, compact density fiberboard (CDF), and LIGNOdur panels. The choice depends on the area of application and the specific requirements placed on the material. Our selection ranges from three-layer chipboard for cabinet-type units, to extremely robust, compressed solid core boards and outstandingly tough LIGNOdur panels - patented by VS.

All the boards processed by VS belong to emission class E1 (European standard); in 2020, this will be adapted to comply with the standard TSCA Title VI as specified by CARB (California Air Resources Board) Phase II.

The surfaces of the panels are chosen from a wide range of laminates, genuine wood veneers, or linoleum. The edges are designed to match the surfaces using plastic (ABS), solid wood edging, cast-on polyurethane (PUR) edging, and ground or molded edging (in the case of compressed solid core, CDF, and LIGNOdur boards).

BOARDS

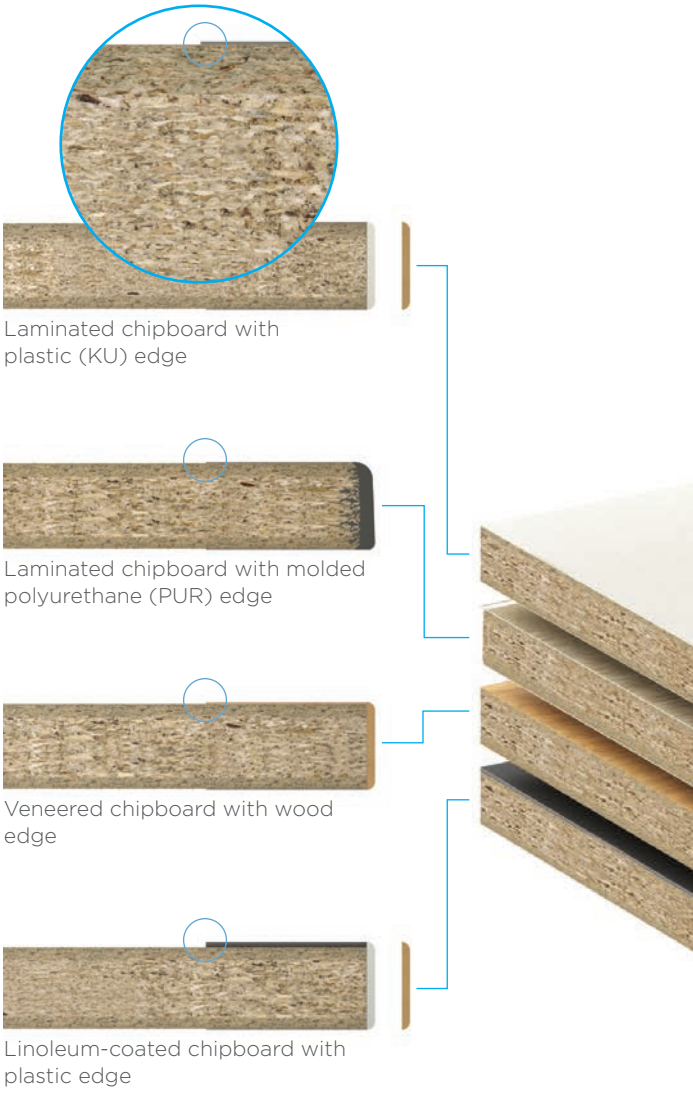
Chipboard panels (LIGNOpal).

Edges and surfaces.

Three-layer chipboard panels are made from compacted glued wood chips. The outer layers consist of finer chips that are covered with a laminate, or genuine wood veneer. All chipboard panels processed by VS correspond to the lowest emissions class E1 and comply with the standard TSCA Title VI - as specified by CARB (California Air Resources Board) Phase II.

The edges are applied in our own factory. This way, we are able to achieve results better than the threshold value for LGA pollutant-tested certification. Chipboard panels from VS are made from up to 35% recycled materials, due in part to the use of waste-wood from sawmills. The wood used to manufacture the chipboard panels is sourced exclusively from sustainable forestry and certified according to PEFC.

The plastic or wood edges are glued on. There is also a molded polyurethane safety edge that is bonded to the board.



Laminated chipboard with plastic (KU) edge

Laminated chipboard with molded polyurethane (PUR) edge

Veneered chipboard with wood edge

Linoleum-coated chipboard with plastic edge

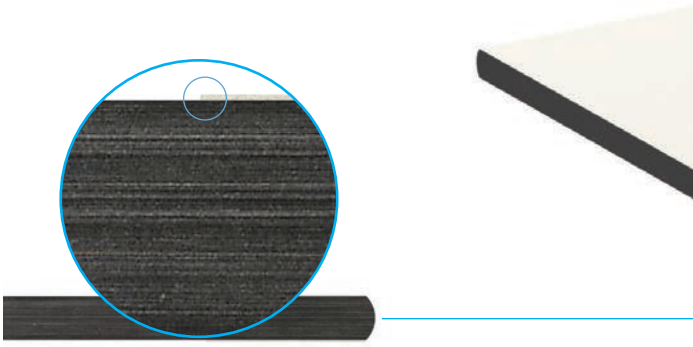
CHIPBOARD

Compressed Solid Core.

Edges and surfaces.

Compressed solid core boards are a highly durable laminated material. They consist of layers of cellulose that are densely compacted in a high-pressure process and bonded with thermosetting resins. The paper/composite cores are dark, giving the boards their black appearance. Compressed solid core boards are extremely stable, impact-resistant, and waterproof - however, due to their high density, they are also relatively heavy. They're typically used wherever heavy loads may occur. The material permits precise internal milling, useful for cable outlets (as an example). Curved edges can also be produced.

Both sides of the top are laminated. The black edge is rounded, milled, and oiled. Compressed solid core boards correspond to the lowest emission class E1.



Laminated, compressed solid core board with a milled, oiled edge

COMPRESSED SOLID CORE

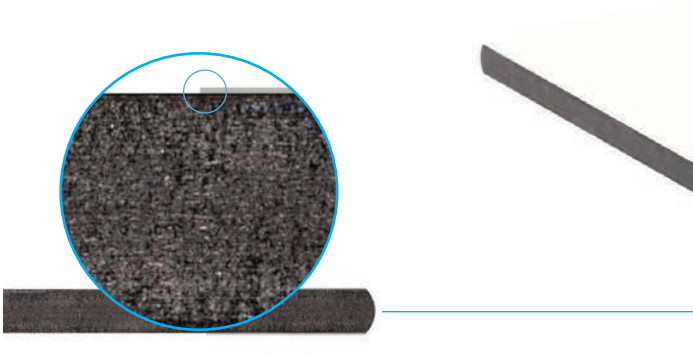
Compact Density Fiberboard (CDF).

Edges and surfaces.

Compact Density Fiberboard (CDF) is compacted more densely than MDF boards. CDF boards are black in color and made from extremely fine wood particles compressed together with bonding agents and adhesives.

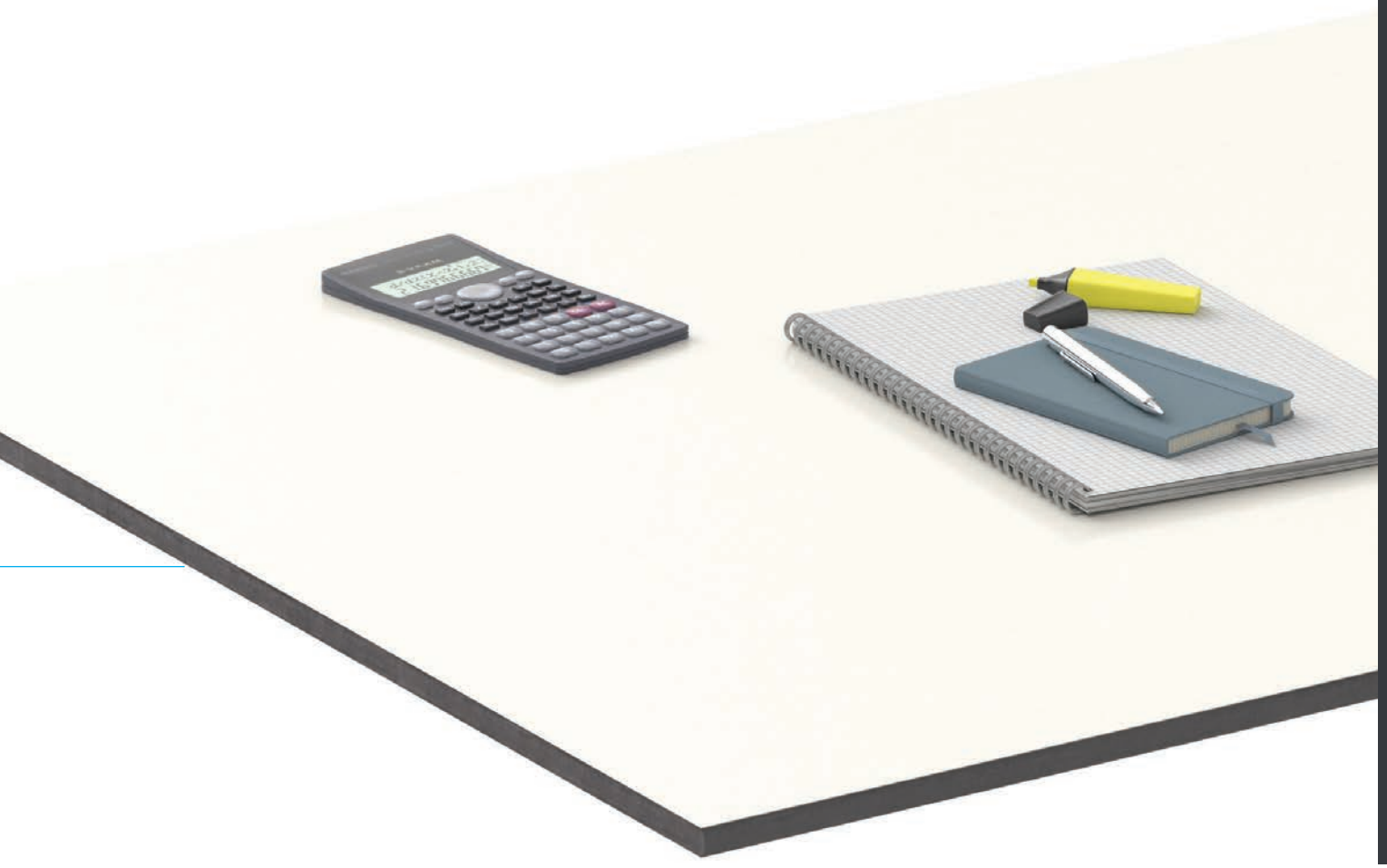
The surface is laminated on both sides. The black edge is rounded, milled, and then oiled. CDF boards correspond to the lowest emission class E1 and comply with the standard TSCA Title VI as specified by CARB (California Air Resources Board) Phase II.

CDF boards are stable but not self-supporting. When used as larger cut panels (large tables for example), they require a substructure to lend additional stability. The material permits internal milling (cable outlets, for example) which are also oiled for added protection



Laminated CDF with a milled, oiled edge

COMPACT DENSITY FIBERBOARD (CDF)



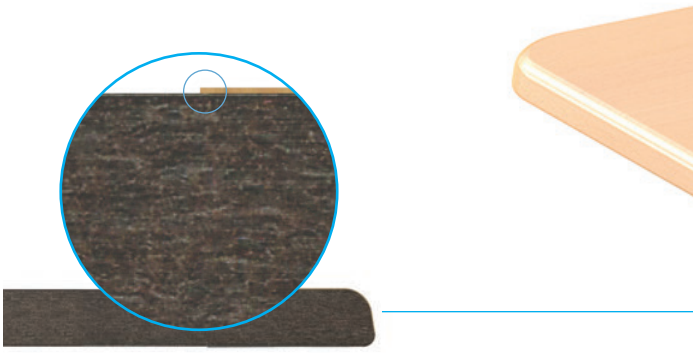
LIGNOdur boards.

Edges and surfaces.

LIGNOdur boards are produced exclusively from wood residue (sawdust and wood chips) resulting from the machining of solid wood. This wood waste is compacted with a phenol-polymer adhesive under heat and high pressure, using a process patented by VS in the 1960s. They bond to form an extremely rigid and highly durable board, without the need to add synthetic resin.

LIGNOdur boards are laminated with a decorative film. This laminate is pulled over the rounded edges and corners without seams. This results in a particularly tough, impact-resistant and exceptionally durable board - not just across the surface, but also around the edges. With this level of endurance for heavy-duty loads, LIGNOdur boards are particularly resilient to the often rigorous use of student desks in education.

LIGNOdur boards meet the requirements of emission class E1 and also comply with the standard TSCA Title VI as specified by CARB (California Air Resources Board) Phase II.



Laminated LIGNOdur board with a rounded edge

LIGNODUR BOARDS

Laminates and plastic edges for tabletops, panels, and doors.

Panel surfaces are either veneered with genuine wood, or laminated on both sides. This laminate is colored in a single hue, or printed with a wood effect. Decorative laminates are thermoset and also used as edge material.

When coated with the decorative laminate, the surface is water-, impact-, and abrasion-resistant. It is also easy to clean and resistant to many chemicals.

To be laminated, the base material must be even, smooth, and free from dust and grease. Only boards with a very fine surface are suitable for this process because any unevenness would be emphasized by the laminate. A polyolefin hot-melt adhesive is applied to the surfaces of the boards in glue-dispensing machines. The films, which are cut to be larger than the boards, are then applied without blisters or bubbles in a roller or veneering press.

Plastic edges are made from ABS (Acrylnitrile-Butadiene-Styrol-Copolymer) which is a thermoplastic without a clearly defined shape.

LAMINATES

L1

L027: natural beech laminate

L028: natural maple laminate

L031: grey white

L035: andes grey

L2

L027: natural beech laminate

L028: natural maple laminate

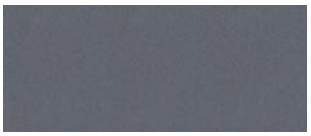
L031: grey white

L035: andes grey

L328: white

L3

L017: astral silver



L018: anthracite

L019: plain black

L027: natural beech laminate

L028: natural maple laminate

L029: natural walnut laminate

L031: grey white

L035: andes grey

L315: orange

L328: white

L4


L340: natural oak laminate


L027: natural beech laminate


L315: orange

L414: warm white

L412: light blue


L028: natural maple laminate

L328: white


L415: terra grey

L413: light green


L029: natural walnut laminate


L340: natural oak laminate

L414: warm white

L031: grey white

L412: light blue


L415: terra grey

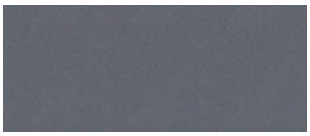
L035: andes grey

L413: light green

L5

L017: astral silver

L328: white



L018: anthracite

L412: light blue

L019: plain black

L413: light green

L027: natural beech laminate

L414: warm white

L031: grey white

L415: terra grey

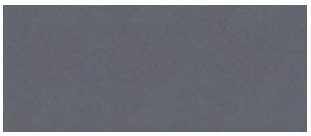
L035: andes grey

L315: orange

L6

L017: astral silver

L035: andes grey



L018: anthracite

L328: white

L019: plain black

L340: natural oak laminate

L027: natural beech laminate

L414: warm white

L028: natural maple laminate

L415: terra grey

L029: natural walnut laminate

L031: grey white

L7

L281: aged beech laminate

L434: crystal white

L435: light grey

L9

L027: natural beech laminate

L028: natural maple laminate

L031: grey white

L035: andes grey

L328: white

L340: natural oak laminate

Linoleum for tabletops.

Another natural-based coating material for VS tabletops is linoleum. This is a mixture of raw materials such as linseed oil, resins, and cork flour, which is applied to a jute carrier layer.

The linoleum coating gives the tabletop an elegant surface with a pleasant, tactile feel - very suitable as a desk pad. The linoleum is adhered using a water-based adhesive (PVAc). Panel edges made of wood or plastic are applied by hot-melt gluing.

Since linoleum consists of natural raw materials and color pigments, the surface is not impervious to strong alkaline cleaning agents. It should only be cleaned with solutions in the slightly acidic range (pH value less than 7).

Due to the smooth and pleasant feel, linoleum is primarily used for high-quality conference tables or desks. Crafted to exacting standards, these high-quality surfaces also impress with their appearance.

L8

L051: red

L054: ivory

L057: dark grey

L058: black

LINOLEUM

Veneers, plywood, and solid wood edges.

Veneers are thin layers of wood in the range of 0.6 to 1 millimeter, which are adhered with a water-based adhesive (PVAc). The wood edge (2 to 2.5 millimeters) is attached with hot-melt glue. Using veneers, the character and tactile quality of solid wood can be convincingly imitated, resulting in more economical usage of natural wood as a valuable resource.

Plywood consists of several veneer layers which are bonded together with urea-based resins. In order to produce three-dimensional furniture parts such as seat shells or backrests, the veneers are glued and formed into the desired shape before hardening. Plywood made of beech is used for VS chair models such as Panto-VF, JUMPER® Ply, Stratos, or the Eiermann collection.

After being cut to size and ground, the surfaces are coated several times with a clear or colored glazed lacquer. VS only uses water-based lacquers to achieve this.

The solid wood processed at VS is sourced exclusively from sustainably managed forests in accordance with the guidelines of the “Programme for the Endorsement of Forest Certification Schemes” (PEFC). According to these guidelines, the path of the wood from cultivation in the forest to the finished product must be completely traceable. All products manufactured by VS from wood or wood-based materials are 100% PEFC-certified. The certificate is valid worldwide and is continuously monitored.

F1

F010: natural beech

F015: european natural oak

F011: canadian maple

F016: pear natural wood

F012: american natural cherry

F018: wengé

F013: natural birch

F019: american walnut

F014: natural ash

VENEERS

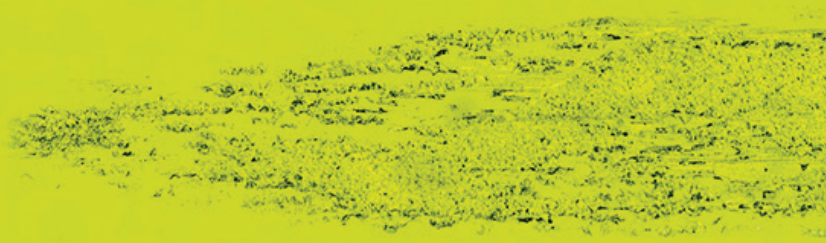
Metal colors for steel surfaces.

Fronts for cabinet-type units, and table and chair frames.

VS uses steel tubes made from approximately 40% recycled materials. When they come to the end of their lifecycle, they can be completely recycled.

The surfaces of steel tubes are coated with solvent-free epoxy resin powder-coating. Epoxy resins are synthetic resins that are transformed into a thermosetting plastic by means of a hardening agent. The resulting high-quality surface coating possesses good mechanical properties, as well as high temperature and chemical resistance. This technology also meets high ecological standards.

In addition to steel, aluminum is also used for the surfaces of cabinet-type units, as well as chair and table frames. The aluminum alloy is made from approximately 90% recycled materials. After use, the material is fully recyclable. The aluminum surfaces are polished, anodized, or painted metallic silver. Alongside the various metal colors, certain products can also be chrome-plated.



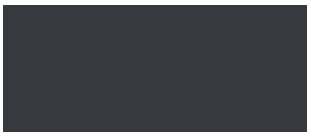
METAL COLORS

M1

M030: terra grey

M059: arctic

M031: petrol



M063: anthracite

M032: light blue

M065: black

M033: light green

M071: sapphire blue (RAL 5003)

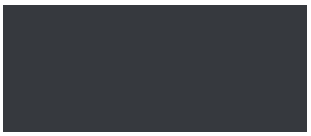
M034: orange

M084: oxblood

M091: white (RAL 9016)

M2

M059: arctic



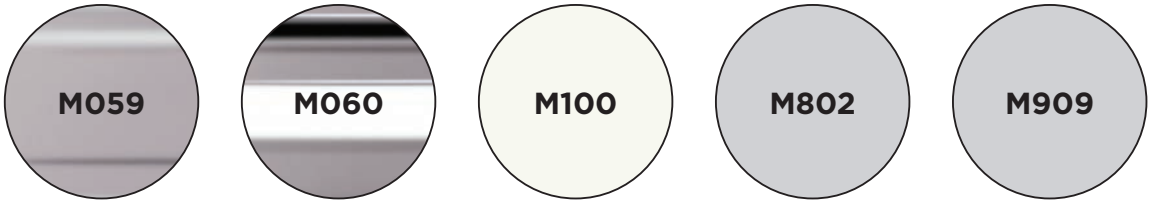
M063: anthracite

M065: black

M091: white (RAL 9016)

VS uses aluminum that includes a high proportion of recycled material for cabinet-type unit fronts, and chairs and table frames. The aluminum surfaces are polished, anodized, or painted metallic silver. Alongside the various metal colors, certain products can also be chrome-plated.

M
Other metal surfaces



Other metal surfaces
049, 010, 020, 801 polished aluminum
060, 011 chrome-plated
100 anodized aluminum
802 silver aluminum
909 silver

Wood stains and paints for seat shells and solid wood edges.

At VS, solid wood parts are primarily used during the production of chairs and tables. They are generally made from beechwood but can also be manufactured from oak. After being cut to size and sanded, the wood parts are primed (if necessary) and subsequently coated several times with a clear or colored glazed varnish - or are fully lacquered. To do this, VS only uses wood stains or water-based lacquers.

Staining brings out the characteristic grain structure of the wood, with the treated surface retaining its own natural appearance.

The water-based lacquers used by VS are classified as having a low-pollutant level. Unlike conventional solvent-based lacquers, these water-based lacquers contain only 6% instead of 70% volatile organic compounds (VOCs). As a result, VS is significantly below the legally required limit set out in the 31st German Federal Clean Air Act (Ordinance on Solvents).

WOOD STAINS

H1

H010: natural (900)

H025: orange

H011: black (901)

H027: dark red

H021: light green

H028: dark green

H022: light blue

H029: dark blue

H023: light grey

H2

H010: natural (900)

H 015+010: natural oak

H011: black (901)

H 015+011: black oak

H051: polar white

H 015+051: polar white oak

H3

H010: natural (900)

H025: orange

H037: traffic red

H011: black (901)

H027: dark red

H051: polar white

H021: light green

H028: dark green

H022: light blue

H029: dark blue

H023: light grey

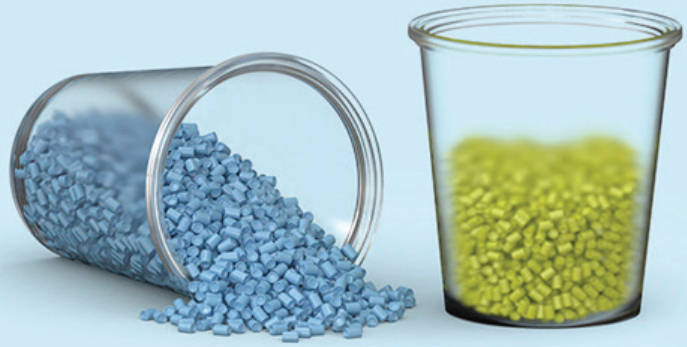
Plastics for seat shells, active stools, and boxes.

Polypropylene is a high-quality material that can be fully reused at the end of the product lifecycle.

VS uses the plastic polypropylene material for the comfortable dual-walled seat shell with air cushion effect, or for the Hokki active stool, for example. This material is particularly tough and scratch-resistant.

The elegant single-walled seat shell of the NF-Chair is also made from the recyclable plastic, polypropylene. The seat shell also has an integrated glass fiber-reinforced core to ensure high stability. This provides compactness and stability in the center and other areas subject to high loads - while the shell remains yielding and flexible at the edges.

The mono-sandwich technology makes it possible to manufacture seat shells with very specific properties, by combining different materials. Using this technology, one component forms the outer skin of the part and the other, the core.



As a mono-material, polypropylene can be recycled without difficulty. The recovered material is used for new products, thereby saving resources.

PLASTICS

C1

C027: dark red

C033: light green

C029: dark blue

C034: green

C030: light blue

C036: purple

C031: white

C032: orange

C073: black grey

C078: dolphin grey

C2

C027: dark red

C033: light green

C029: dark blue

C034: green

C030: light blue

C036: purple

C031: white

C037: traffic red

C032: orange

C073: black grey

C4

C027: dark red

C033: light green

C029: dark blue

C034: green

C030: light blue

C036: purple

C031: white

C037: traffic red

C032: orange

C073: black grey

C078: dolphin grey

C6

C029: dark blue

C033: light green

C037: traffic red

C073: black grey

Polypropylene.

Gratnells

These robust plastic boxes have more than proven their worth for everyday school use. For example, as storage boxes for arts and crafts materials, or for sorting items associated with certain school subjects. The polypropylene boxes are stable and resistant to damage. They are also chemically resistant, allowing for easy, blemish-free cleaning. As a mono-material, polypropylene is 100% recyclable.

C3

C011: red

C029: dark blue (041)

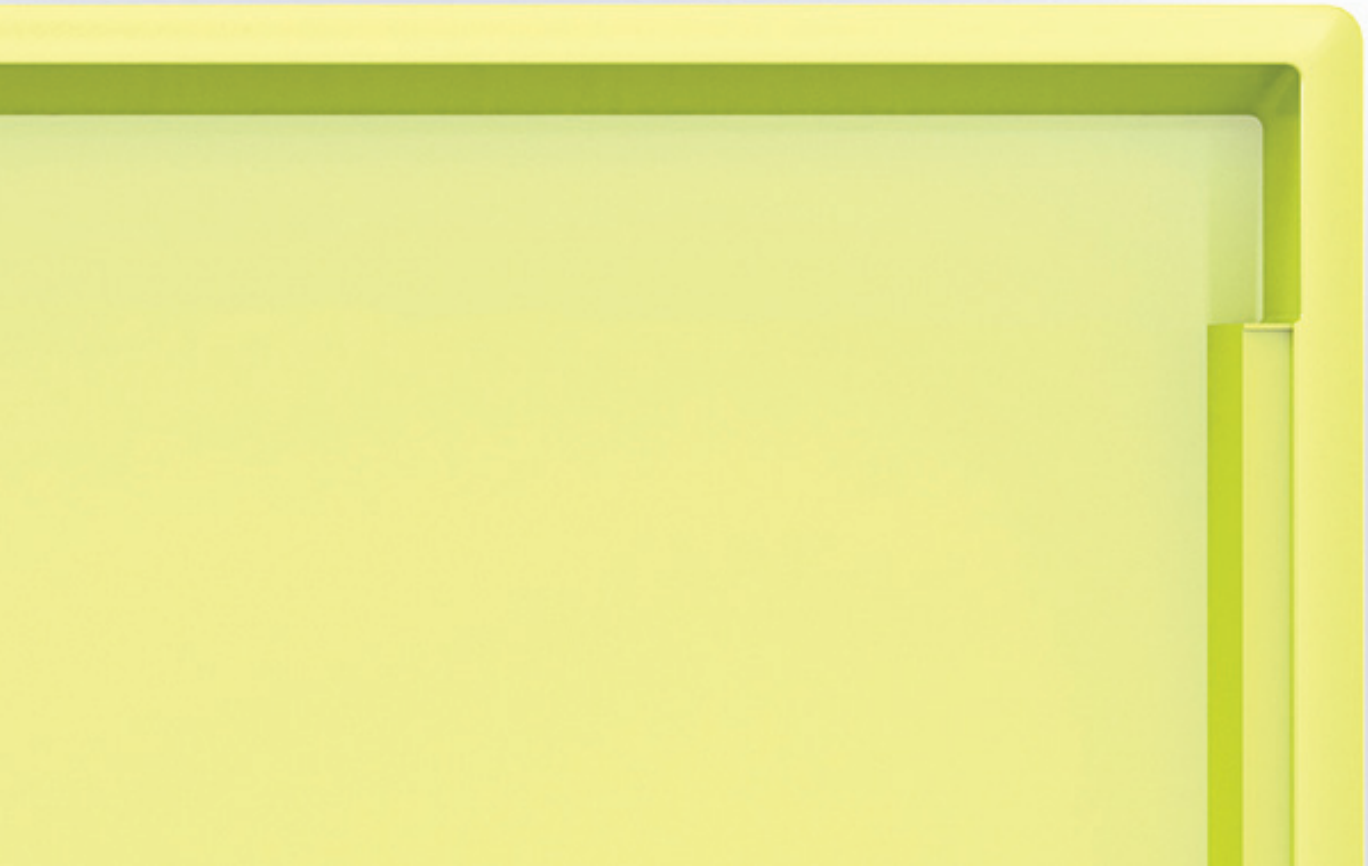
C015: anthracite (025)

C030: light blue (042)

C016: translucent (026)

C033: light green (043)

C027: dark red (040)



Fabrics for upholstered furniture.

VS uses various fabrics for its upholstered furniture, making it possible to cover a very wide range of requirements. Alongside polyester and the polyester-based material Trevira CS, there are also coverings made from wool materials and artificial leather. The decisive factors when choosing fabrics are quality aspects and environmental criteria. All foam paddings and most fabrics (or fabric groups) used at VS are certified in accordance with the Öko-Tex standard. The certificate is recognized internationally. The standard 100 by Öko-Tex is an independent product label awarded to pollutant-tested textiles by the "International Association for Research and Testing in the Field of Textile and Leather Ecology." The textiles used by VS outperform the threshold values defined for certain health-threatening pollutants.

FABRICS

Fire protection and technical testing methods. Quality characteristics of fabrics.

Fire protection
The relevant fire protection properties are determined not only by the fabric but by the entire furniture piece. The corresponding requirements are formulated in DIN 66084 on the "Burning behavior of upholstered compounds," which specifies the classes P-a, P-b, and P-c.

Classification is performed by means of the cigarette test as set out in DIN EN 1021 Part 1, the match test as set out in DIN EN 1021 Part 2, and the paper pillow test as set out in DIN 54341.

Most upholstered furniture and chair models from VS conform to the classifications P-c (low) and P-b (medium). The classification P-a (high) is achieved if the furniture is treated with an optional flame retardant for increased fire protection.

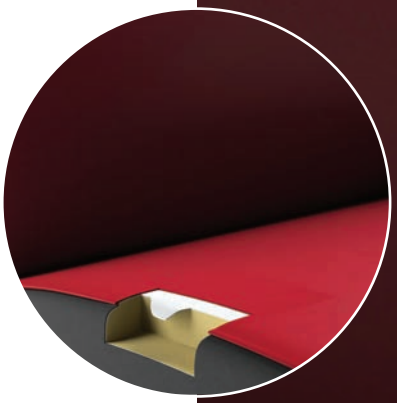
Technical test methods
The Martindale method is used to determine the abrasion resistance of upholstery materials and the result is output in the form of a number of abrasion cycles. The greater the number of cycles, the more abrasion-resistant the fabric is. For very high-use environments, a minimum of 40,000 abrasion cycles is recommended. At VS, the minimum standard for upholstery fabrics is 50,000 abrasion cycles.

Information about the color-fastness of materials also indicates their rub-fastness. The assessment is made on a scale from 1 to 5, where level 5 indicates the highest degree of rub-fastness.

Lightfastness evaluates the color-fastness of a fabric against the influence of light. The evaluation is subdivided into eight levels. In general, a lightfastness level of 4 to 5 is expected for furniture in closed rooms.

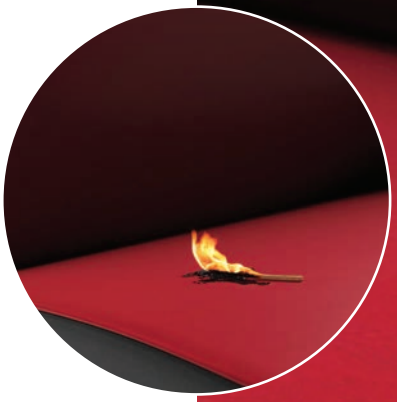
The measurement of pilling indicates the level to which lint may form on the surface of fabrics. Fabrics are rated on a scale from 1 to 5. The highest score of 5 indicates that no visible changes occur to the surface of the fabric.

VS integrates an invisible textile flame retardant which has no effect on the design or seating comfort of the furniture.



Cigarette test as per DIN EN 1021 Part 1

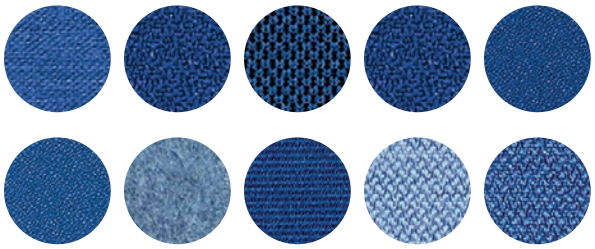
Match test as per DIN EN 1021 Part 2



Paper pillow test as per DIN 54341

FABRICS

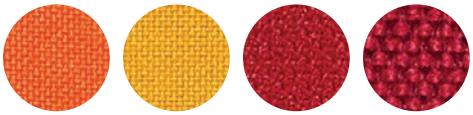
Polyester.



Polyester is a very tough, tear-resistant material. It is easy to care for and forms almost no creases. It absorbs very little humidity, so also dries very quickly. Polyester fabrics are generally recyclable and can be returned to the materials cycle. This limits resource and energy consumption, which reduces CO_2 emissions. Most of the polyester fabrics used by VS are certified in accordance with the Öko-Tex 100 or EU EcoLabel standard.

S41 Cordura
S46 Xtreme
S52 Nexus
S54 Xtreme
S66 Polo
S69 Evo
S72 Sonus
S73 Erika
S74 Era

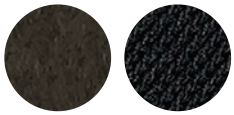
Trevira CS.



Unlike normal polyester, the polyester-based fabric Trevira CS has optimized fire protection, which is integrated in the fibers themselves. The resulting material is permanently flame-resistant. The fire protection is highly resistant to wear with continued use, guaranteeing enhanced safety throughout the lifetime of the product. If a fire occurs, there is no afterglow, with very low smoke emissions. The Trevira CS fabrics used by VS are certified in accordance with the Öko-Tex 100 standard and are fully recyclable.

S76 Mirage E
S77 Mirage E
S78 Step
S79 Trevi D

Wool fabrics.



Wool is a natural, organic, renewable raw material. It regulates heat, provides insulation in cold weather, and absorbs humidity in warm weather. As a result, it creates a pleasant, highly comfortable sitting experience all year round. Due to its natural lanolin content, wool absorbs only small amounts of odor and dirt - an ideal choice for high-quality, long-life upholstered furniture. Since it is not flammable, wool also provides natural fire protection. Pure wool fibers can usually be recycled without difficulty.

VS uses fabrics made from pure, high-quality New Zealand ‘new wool’ sourced from responsible stock-breeders. New wool is shorn directly from sheep and contains no recycled wool, or wool recovered from fleeces.

S51 Blazer
S80 Select

Artificial leather.

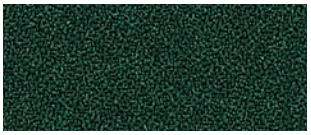
Artificial leather usually consists of a composite made from a textile substrate (e.g. a woven fabric) and a synthetic covering layer (e.g. polyvinyl chloride). The weaves may take the form of natural fibers, synthetic fibers, or a combination of the two - often coated with soft polyvinyl chloride (PVC). Depending on the application, this coating may be compact or foamed. The surface is often given a grained structure so the appearance also resembles that of leather.

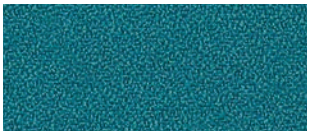
Modern artificial leathers are often coated with polyurethane instead of PVC. In order to obtain a certain softness of the coating, which gives the material the corresponding fullness and seating comfort, the coating is given a foam structure.

S40 Stamskin Top
S64 Mover
S81 Evida Venezia

S46 Xtreme
by Camira

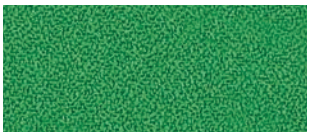

S290: black (YS009)

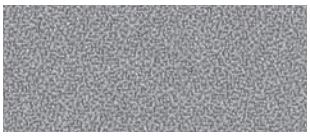

S296: dark green (YS045)

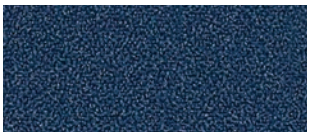

S317: turquoise (YS160)


S291: anthracite (YS046)

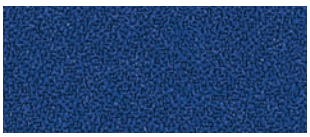

S299: red (YS079)

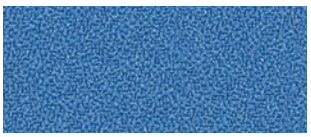

S318: green (YS159)


S293: light grey (YS094)


S315: dark blue (YS026)


S319: dark red (YS136)


S295: blue (YS005)

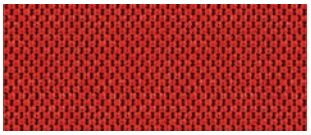

S316: light blue (YS097)

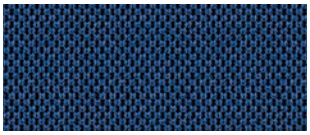
This woven crepe loom is made from 100% recycled polyester. It is extremely elastic and durable and is non-pilling. It also has naturally lower flammability properties. Xtreme is a very popular upholstery material, e.g. for office chairs. Certificates: Öko-Tex 100, EU EcoLabel.

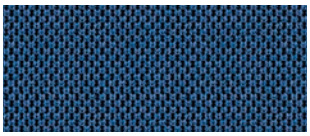
Material: 100% post-consumer recycled polyester, coated with two layers of acrylate; water-, oil- and dirt-repellent fluorocarbon saturation
Abrasion cycles; Fastness to rubbing: ≥ 100,000; 4 wet, 4 dry
Width; Weight: 1400 mm; 435 g/lm, 310 g/m2
Lightfastness: 6 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 7176 Low/Medium Hazard, BS 476 Part 7 Class 1, BS 5852, DIN 4102 B1, ÖNORM B 3825 & A 3800-1 B1/Q1, NF D 60-013, UNI 9175 class 1 IM, CAL 117
Environmental certifications: OEKO-TEX 100 (category 2), EU Ecolabel, recyclable, with no heavy metal content
Cleaning: Handwash, lukewarm water; mild detergent; leave to dry thoroughly

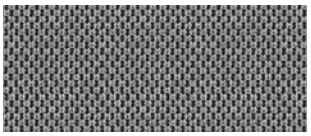
S52 Nexus
by Camira

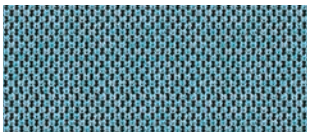

S278: anthracite (UNY11)

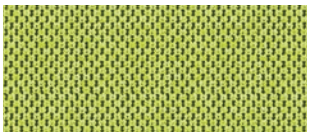

S302: red (UNY16)


S325: dark blue (UNY15)


S279: blue (UNY03)


S324: grey (UNY01)


S326: petrol (UNY10)


S281: green (UNY05)

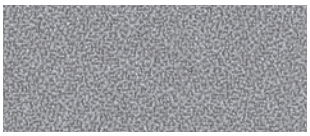
Nexus is an elegant, stylish technical knitted fabric stretchable in two dimensions, providing comfortable upholstery. The design has the appearance of a stitched matrix of dots. It can be used for both seating surfaces and vertical areas. Certificate: Öko-Tex 100.

Material: 100% Polyester
Abrasion cycles; Fastness to rubbing: ≥ 100,000; 4 wet, 4 dry
Width; Weight: 1730 mm; 528 g/lm, 305 g/m2
Lightfastness: 5 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 7176 Low Hazard, BS 476 Part 7 Class 1, EN 13501-1 Adhered Class B, s2, d0, Un-adh. Class C, s1, d1, UNI 9175 class 1 IM, NFPA 260, CAL 117
Environmental certifications: OEKO-TEX 100 (category 2), recyclable, with no heavy metal content

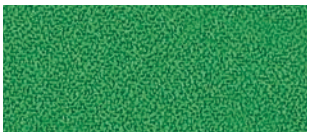
S54 Xtreme
by Camira

S290: black (YS009)

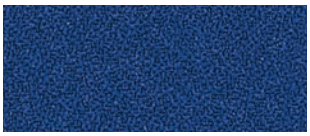
S299: red (YS079)



S293: light grey (YS094)



S318: green (YS159)



S295: blue (YS005)

Xtreme is a woven crepe loom made from 100% recycled polyester. It is extremely elastic and durable and is non-pilling. It also has naturally lower flammability properties. Xtreme is a very popular upholstery material, e.g. for office chairs. Certificates: Öko-Tex 100, EU EcoLabel.

Material: 100% post-consumer recycled polyester, coated with two layers of acrylate; water-, oil- and dirt-repellent fluorocarbon saturation
Abrasion cycles; Fastness to rubbing: ≥ 100,000; 4 wet, 4 dry
Width; Weight: 1400 mm; 435 g/lm, 310 g/m2
Lightfastness: 6 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 7176 Low/Medium Hazard, BS 476 Part 7 Class 1, BS 5852, DIN 4102 B1, ÖNORM B 3825 & A 3800-1 B1/Q1, NF D 60-013, UNI 9175 class 1 IM, CAL 117
Environmental certifications: OEKO-TEX 100 (category 2), EU Ecolabel, recyclable, with no heavy metal content
Cleaning: Handwash, lukewarm water; mild detergent; leave to dry thoroughly

S66 Polo
by FiDiVi

S774: blue (77021)

S776: anthracite (77030)

S775: black (77033)

S778: red (77040)

Polo is a robust but elegant woven crepe loom that is pleasant to the touch. It is particularly suitable for office chairs. It is made from pure polyester and is completely recyclable. Certificate: Öko-Tex 100.

Material: 100% Polyester
Abrasion cycles; Fastness to rubbing: 150,000; 4-5 wet, 4-5 dry
Width; Weight: 1400 mm; 350 g/lm, 250 g/m2
Lightfastness: 6 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test)
Environmental certifications: OEKO-TEX 100 (category 2), recyclable, with no heavy metal content
Cleaning: Do not wash, do not bleach, iron with medium heat, clean with perchlorethylene

S69 Evo
by VS

S773: red (EV-5)

S788: anthracite (EV-1)

S787: black (EV-11)

S790: blue (EV-9)

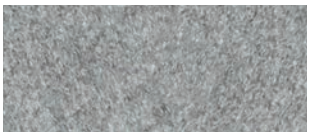
Evo is a highly resistant, robust covering material that is very suitable for office chairs. The surface of the woven crepe loom has a slightly structured appearance, making it pleasant to the touch and ensuring good adherence. The fabric is made from 100% recyclable polyester. Certificate: EU EcoLabel.

Material: 100% Polyester
Abrasion cycles; Fastness to rubbing: 150,000; 4-5 wet, 4-5 dry
Width; Weight: 1400 mm; 300 g/lm, 214 g/m2
Pilling; Lightfastness: 5 (1-5); 4-5 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test)
Cleaning (dry cleaning; mechanical): With tetrachloroethylene and water solution of carbonate fluoride; clean the whole surface with a damp cloth
Note: Formaldehyde measurement acc. to PN-EN ISO 14184-1; color fastness to perspiration acc. to PN-EN ISO 105-E04

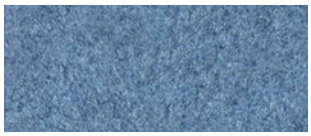
S72 Sonus
by Camira

S254: anthracite (FHR05)

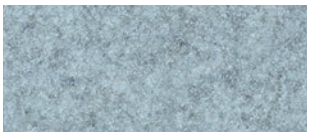
S259: red (FHU10)



S255: grey (FHU04)



S261: blau blue (FHU14)



S257: grey blue (FHR06)

S262: turquoise (FHU15)

Sonus is a lightweight, acoustically transparent felt fabric. It is used for panels, textile screens and other vertical surfaces. The needled felt fabric is available in a wide range of colors, allowing for interesting combinations.

Material (S254, S257): 72% Polyester, 18% Polyamide, 10% Viscose
Material (S255, S259, S261, S262): 57% Polyester, 43% Polyamide
Width; Weight: 1700 mm; 340 g/lm, 200 g/m2
Lightfastness: 5 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), BS 476 Part 7 Class 1, EN 13501-1 Adhered Class B, s1, d0
Environmental certifications: with no heavy metal content

S73 Erika
by FiDiVi


S327: black (8033)


S330: blue (6080)


S333: turquoise (7026)


S335: green (7011)

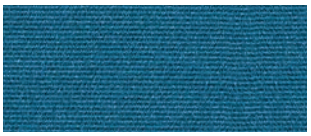

S328: dark grey (8003)


S331: light blue (6026)


S334: dark green (7029)


S336: red (4027)


S329: dark blue (6098)

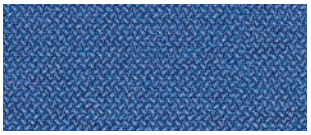

S332: petrol (6031)

Erika is a knitted fabric made from polyester. It is elasticated and therefore highly suitable for upholstery applications. The single-colored appearance creates a form of discreet, narrow rows. Certificate: Öko-Tex 100.

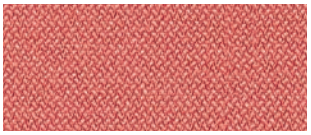
Material: 100% Polyester
Abrasion cycles; Fastness to rubbing: 70,000; 4 wet, 5 dry
Width; Weight: 1400 mm; 310 g/lm, 220 g/m2
Lightfastness: 6 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 7176 Medium Hazard, BS 5852 Crib 5, UNI 9175 class 1 IM
Environmental certifications: OEKO-TEX 100 (category 2), recyclable

S74 Era
by Camira

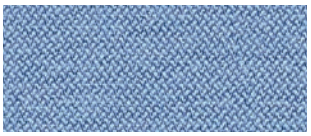

S337: black (CSE14)


S341: blue (CSE12)


S345: white green (CSE36)

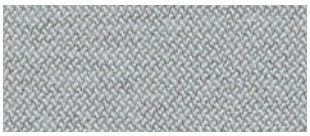

S350: salmon (CSE26)

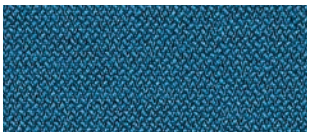

S338: grey (CSE44)

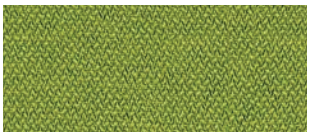

S342: light blue (CSE08)

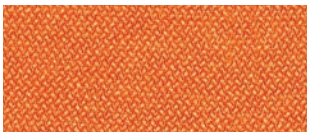

S346: dark green (CSE35)


S351: pink (CSE19)

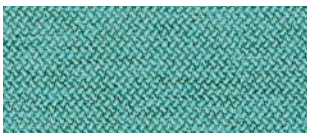

S339: light grey (CSE46)


S343: petrol (CSE15)

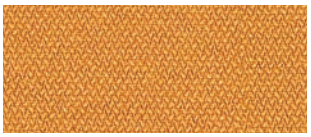

S347: light green (CSE16)


S352: orange (CSE05)

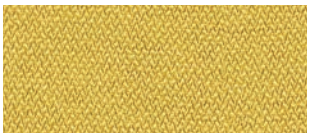

S340: dark blue (CSE40)


S344: turquoise (CSE37)


S348: grey green (CSE34)


S353: yellow orange (CSE27)


S349: dark red (CSE28)

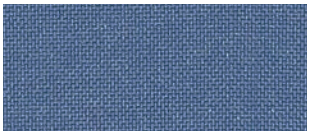

S354: yellow (CSE03)

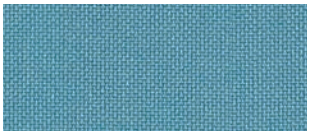
This multipurpose polyester material can be stretched in two directions, simplifying the upholstery process. The two-colored fishbone weave provides a restrained, modern texture. The range of colors includes bright, pastel and muted tones. Certificate: Öko-Tex 100.

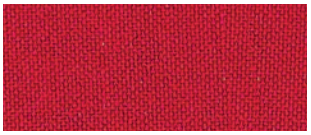
Material: 100% Polyester
Abrasion cycles; Fastness to rubbing: ≥ 100,000; 4 wet, 4 dry
Width; Weight: 1400 mm; 448 g/lm, 320 g/m2
Lightfastness: 5 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 7176 Low Hazard, EN 13501-1 Adhered Class B, s1, d0, Un-adh. Class C, s1, d0, NFPA 260, CAL 117
Environmental certifications: OEKO-TEX 100 (category 2), recyclable, with no heavy metal content

S76 Mirage E
by Pugi

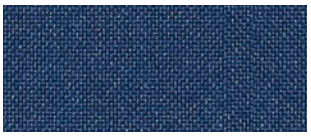

S357: anthracite (6571)


S360: grey blue (6378)

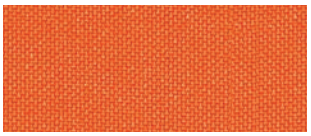

S363: turquoise (6366)

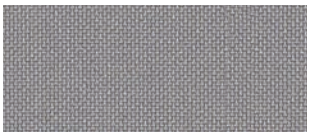

S366: red (6231)

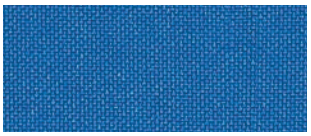

S358: grey (6625)

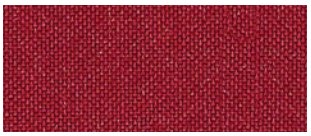

S361: dark blue (6333)

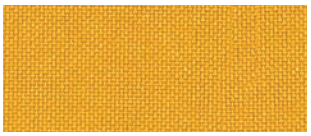

S364: green (6464)


S367: orange (6133)


S359: light grey (6629)


S362: blue (6331)

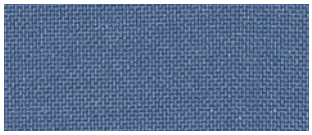

S365: dark red (6236)


S368: yellow (6053)

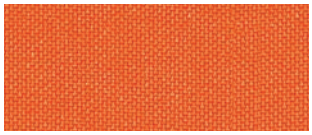
This fabric is a weave made from 100% Trevira CS. It combines a classic appearance with a high level of fire protection. This modern fabric is made from low-flammability polyester fibers. It is stretchable, extremely abrasion-resistant, prevents pilling and offers good adherence - an ideal choice for chairs, for example.

Material: 100% Trevira CS (Polyester)
Abrasion cycles: 100,000
Width; Weight: 1400 mm; 460 g/lm, 328 g/m2
Lightfastness: 6 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 5852 Crib 5, EN 13501-1 Adhered Class B, s1, d0, DIN 4102 B1, ÖNORM B 3825 & A 3800-1 B1/Q1, NF D 60-013, CAL 117
Environmental certifications: OEKO-TEX 100 (category 2), recyclable

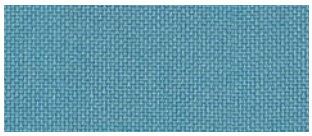
S77 Mirage E
by Pugi



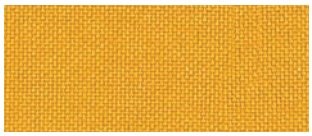
S360: grey blue (6378)



S367: orange (6133)



S363: turquoise (6366)



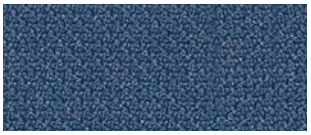
S368: yellow (6053)

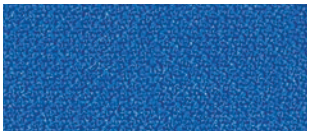
S364: green (6464)

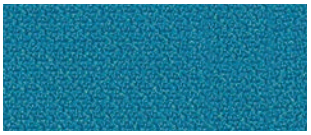
For a description, see S76 on previous page

S78 Step
by Gabriel


S370: grey (60092)

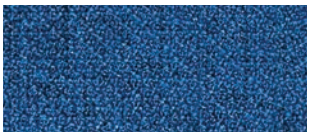

S374: grey blue (66148)

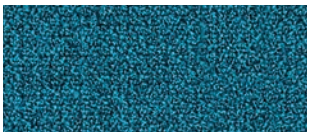

S378: blue (66151)

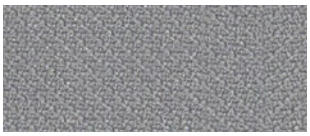

S382: turquoise(67007)

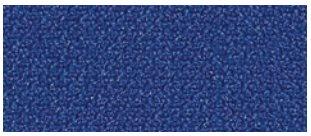

S371: Melange grey (60092)

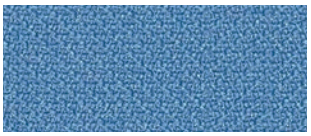

S375: Melangegrey blue (66148)

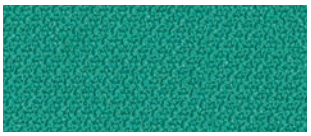

S379: Melange blue (66151)


S383: Melange turquoise (67007)

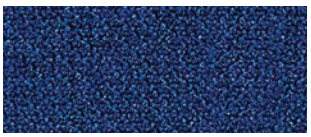

S372: light grey (60004)

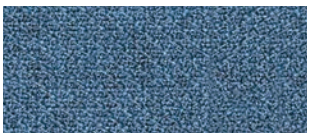

S376: marine (65018)


S380: light blue (66018)


S384: mint green (68157)


S373: Melange light grey(60004)


S377: Melange marine (65018)


S381: Melange light blue (66018)


S385: Melange mint green (68157)

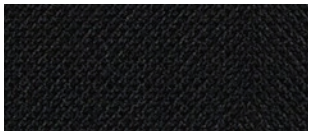
This fabric is a weave made from 100% Trevira CS. It combines a classic appearance, with a high level of fire protection. This modern fabric is made from low-flammability polyester fibers. It is stretchable, extremely abrasion-resistant, prevents pilling and offers good adherence - an ideal choice for chairs, for example.

Material: 100% Trevira CS (Polyester)
Abrasion cycles: 100,000
Width; Weight: 1400 mm; 460 g/lm, 328 g/m2
Lightfastness: 6 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 5852 Crib 5, EN 13501-1 Adhered Class B, s1, d0, DIN 4102 B1, ÖNORM B 3825 & A 3800-1 B1/Q1, NF D 60-013, CAL 117
Environmental certifications: OEKO-TEX 100 (category 2), recyclable

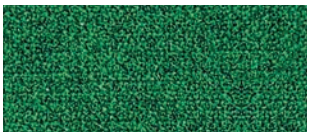
S386: green(68160)

S390: light green(68162)

S394: traffic red (64179)



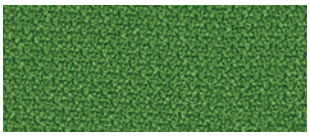
S369: black (60999)



S387: Melange green (68160)

S391: Melange light green (68162)

S395: Melange traffic red (64179)



S388: olive green (68120)

S392: red (64013)

S396: orange (63082)

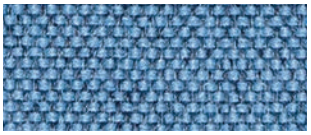
S389: Melange olive green (68120)

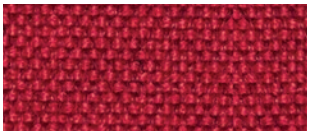
S393: Melange red (64013)

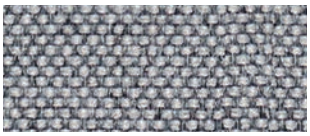
S397: Melange orange (63082)

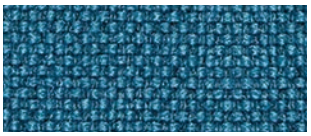
S79 Trevi D
by Pugi

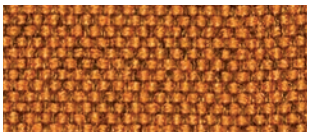

S398: black (25651)

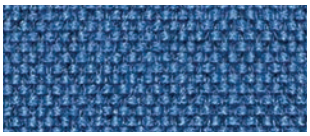

S401: light blue (25353)

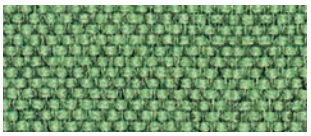

S404: red (25202)

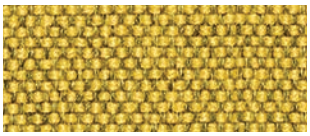

S399: grey (25602)


S402: petrol (25402)


S405: orange (25102)


S400: blue (25302)


S403: green(25453)


S406: yellow (25051)

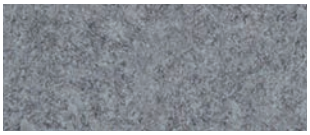
This wool-like material is made from 100% Trevira CS with a tough canvas weave and can be used in many environments. It has a pleasantly soft surface but is also extremely robust, with a high level of resistance to abrasion and pilling. The mechanical finishing process uses no chemical products, giving the material its natural appearance, softness and adherence. Certificate: Öko-Tex 100.

Material: 100% Trevira CS (Polyester)
Abrasion cycles: 100,000
Width; Weight: 1400 mm; 630 g/lm, 450 g/m2
Lightfastness: 6 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 5852 Crib 5, EN 13501-1 Adhered Class B, s1, d0, DIN 4102 B1, CAL 117
Environmental certifications: OEKO-TEX 100 (category 2), recyclable

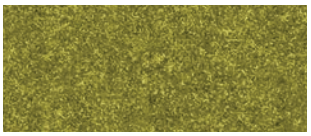
S51 Blazer
by Camira

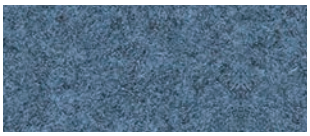

S266: anthracite (CUZ67)


S273: green (CUZ1K)


S320: dark grey (CUZ1J)


S270: grey (CUZ1E)

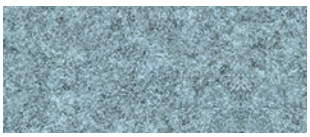

S274: yellow green (CUZ1F)

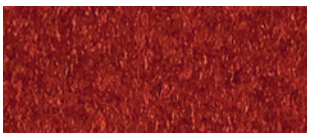

S322: greyblue (CUZ1W)


S271: dark blue (CUZ62)


S276: red (CUZ63)


S323: petrol (CUZ3B)


S272: turquoise (CUZ1R)

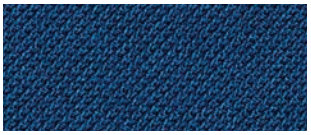

S277: rust-red (CUZ90)

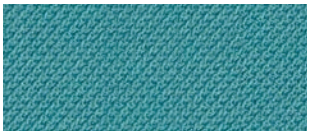
Blazer is a classic covering material made from pure new wool, with a felt-like structure. The fabric is made exclusively from high-quality 'new wool' from New Zealand, which is sourced from responsible livestock breeders. The range of colors includes diverse mottled tones.

Material: 100% New wool
Abrasion cycles; Fastness to rubbing: ≥ 50,000; 4 wet, 4 dry
Width; Weight: 1400 mm; 644 g/lm, 460 g/m2
Lightfastness: 5 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 7176 Low/Medium Hazard, BS 476 Part 7 Class 1, EN 13501-1, Adhered Class D, s1, d0, ÖNORM B 3825 & A 3800-1 B1/Q1, NF D 60-013, UNI 9175 Klasse 1 IM, CAL 117
Environmental certifications: with no heavy metal content

S80 Select
by Gabriel

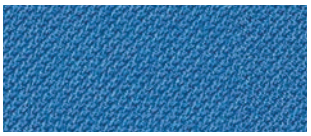

S407: black (60999)


S411: dark blue (66071)

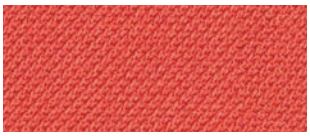

S415: green blue (67100)

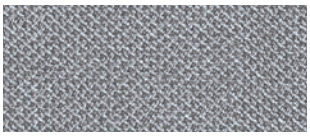

S419: red (64089)

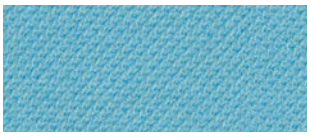

S408: grey (60134)

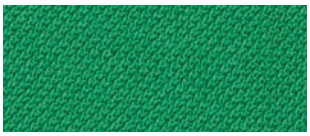

S412: blue (66190)


S416: dark green (67096)


S420: salmon (64215)

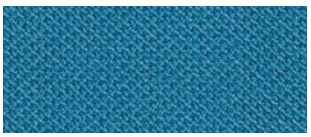

S409: light grey (60139)


S413: light blue (66191)


S417: green(68211)


S421: pink (65117)


S410: grey blue (67097)


S414: petrol (66192)


S418: olive green (67095)


S422: yellow (62099)

With its soft, rich texture and outstanding elastic properties, Select is ideal for upholstering seats and chairs. Select is made from 85% high-quality 'new wool' from New Zealand and 15% polyamide. The tightly woven relief structure gives the fabric its depth and texture, vividly highlighting the colors.

Material: 85% New Zealand wool, 15% polyamide
Abrasion cycles; Fastness to rubbing: 200,000; 4-5 wet, 4-5 dry
Width; Weight: 1400 mm; 510 g/lm, 364 g/m2
Pilling; Lightfastness: 4 (1-5); 5-8 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 5852 Crib 0,1,5, CAL 117
Environmental certifications: OEKO-TEX 100 (category 2), EU Ecolabel, with no heavy metal content

S40 Stamskin Top
by Serge Ferrari


S847: black (00002)


S866: traffic red (07478)


S986: dark red (07479)


S864: dark blue (10295)


S867: orange (20280)


S987: green (07485)


S865: turquoise (20289)

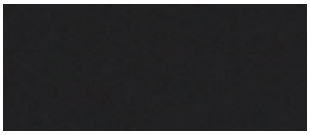

S868: yellow (20299)


S989: grey (07445)

Stamskin Top is a tough easy-to-clean artificial leather made from PVC. This highly durable material is particularly suitable for furniture subjected to intensive use.

Material: Artificial leather, multilayer composite (PVC),
Substrate: polyamide jersey
Abrasion cycles: ≥ 120,000
Width; Weight: 1400 mm; 1092 g/lm, 780 g/m2
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), NFPA 260, CAL 117
Environmental certifications: recyclable

S64 Mover
by Alonso Mercader


S309: black (59)


S312: blue


S310: anthracite


S313: red (124)


S311: grey-brown (118)


S314: green

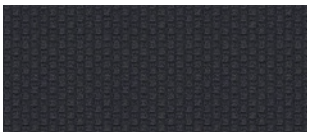
This artificial leather material is made from 100% polyurethane, with a polyester backing composition. The material is also free from softeners. It is pleasant and warm to the touch, quickly adapting to body temperature. The reactive polyurethane absorbs a high level of humidity for additional comfort.

Material: Artificial leather, surface 100% PU-PC,
Substrate: 100% polyester
Abrasion cycles: ≥ 200,000
Width; Weight: 1400 mm; 430 g/lm, 307 g/m2
Lightfastness: 6-7 (1-8)
Fire resistance certification: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 5852 Crib 0,1, CAL 117

S81 Evida Venezia
by Hornschuch


S423: black (32)


S426: green (59)


S424: grey (31)


S427: red (57)


S425: blue (25)

The multipurpose artificial leather Evida Venezia is made from PVC. The surface is extremely pleasant to the touch and has a characteristic woven structure. The backing composition is made from organic cotton or eucalyptus fibers.

Material: Artificial leather, approx. 50% renewable raw materials, approx. 30% natural raw materials, approx. 20% mineral oil-based raw materials (Vinyl = PVC)
Abrasion cycles: ≥ 50,000
Width; Weight: 1370 mm; 1050 g/lm, 750 g/m2
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), EN 1021-2 (P-b, match test), BS 5852 Crib 0,1, UNI 9175 class 1 IM, NFPA 260, CAL 117
Environmental certifications: OEKO-TEX 100 (category 2), with no heavy metal content

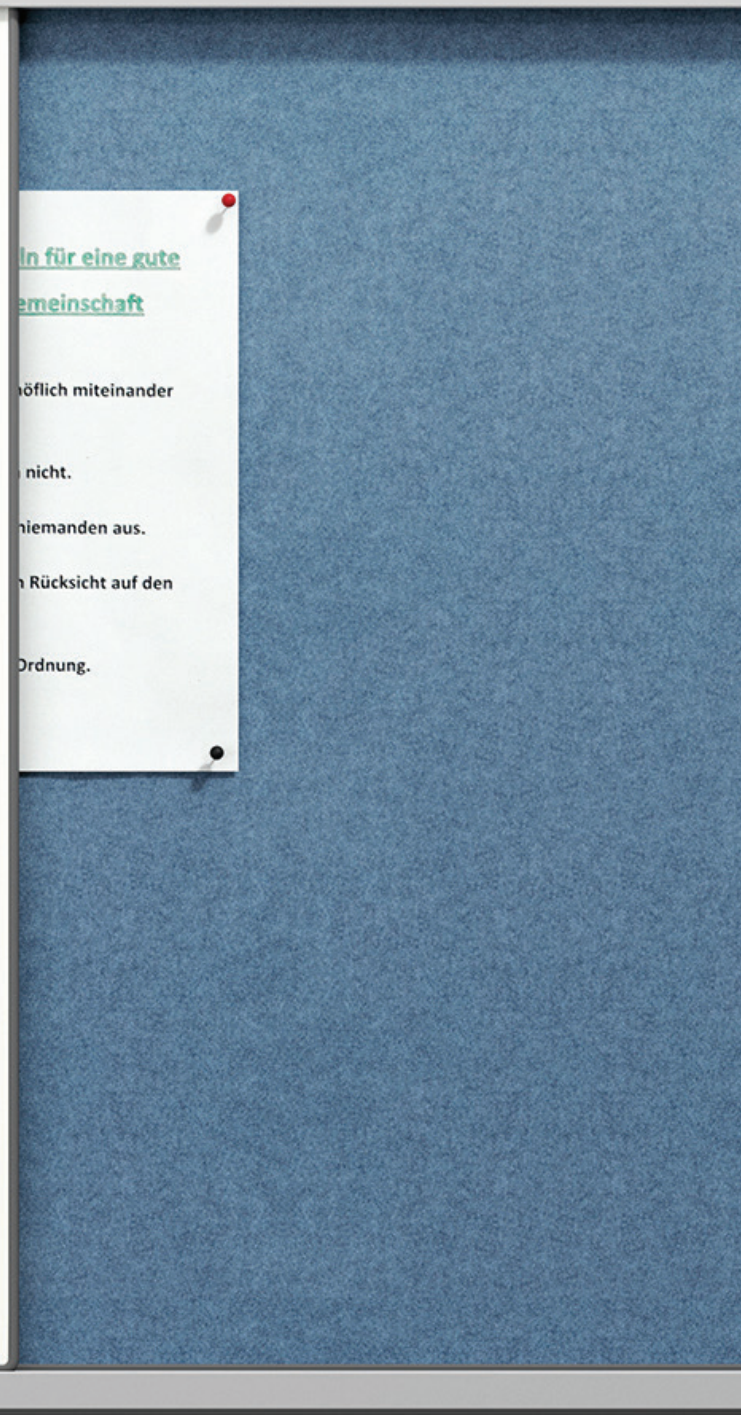
Panel surfaces and bulletin board areas.

VS manufactures panel frames from powder-coated oval steel tubing, which includes approximately 40% recycled material. The powder paint coating is also solvent-free. At the the end of their product lifespan, steel tubes and sheeting can be fully recycled.

Panel surfaces made from sheet steel are held in a frame with rounded aluminum profiles and safety corners. The chalk holder is also made from aluminum. Approximately 90% of aluminum-alloy used by VS comes from recycled materials. When products come to the end of their lifespan, the aluminum can be fully recycled.

Writing surfaces made from sheet steel have a special coating process, which is baked on at a high temperature. White surfaces can be written on with board markers and green surfaces with chalk.

The natural materials cork or felt fabrics are used for bulletin board areas.

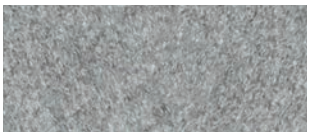


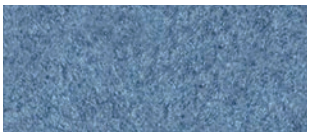
PANEL SURFACES

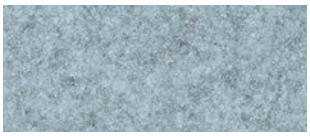
S72 Sonus
by Camira


S254: anthracite (FHR05)


S259: red (FHU10)


S255: grey (FHU04)


S261: blau blue (FHU14)


S257: grey blue (FHR06)


S262: turquoise (FHU15)

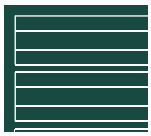
Sonus is a lightweight, acoustically transparent felt fabric. It is used for panels, textile screens and other vertical surfaces. The needled felt fabric is available in a wide range of colors, allowing for interesting combinations.

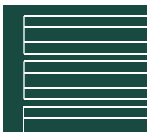
Material (S254, S257): 72% Polyester, 18% Polyamide, 10% Viscose
Material (S255, S259, S261, S262): 57% Polyester, 43% Polyamide
Width; Weight: 1700 mm; 340 g/lm, 200 g/m2
Lightfastness: 5 (1-8)
Fire resistance certifications: EN 1021-1 (P-c, cigarette test), BS 476 Part 7 Class 1, EN 13501-1 Adhered Class B, s1, d0
Environmental certifications: with no heavy metal content

E1

E 020: white

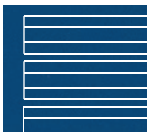

E 019: green


E 001

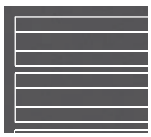

E 002

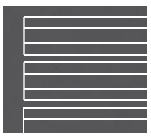

E 100: blue


E 101

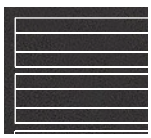

E 102

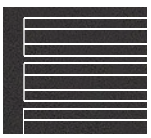

E 120: grey


E 121


E 122


E 140: black


E 141


E 142

Without lineations

1st school year

2nd school year

S72
E1
K1

PANEL SURFACES

	E 024	E 025		E 027	E 029	
E 003	E 004	E 005	E 006	E 007	E 009	E 010
E 103	E 104	E 105	E 106	E 107	E 109	E 110
E 123	E 124	E 125	E 126	E 127	E 129	E 130
E 143	E 144	E 145	E 146	E 147	E 149	E 150
3rd school year	4th school year	Green squares 5 cm	Squares 10 cm	Green music lines	Diamond grid 5 cm	Diamond grid 10 cm

Cork K1

K 081: sand

K 082: grey

K 039: natural cork (085)

Miscellaneous.

Composite materials, felt, cork linoleum, cork.

VS prefers to use mono-materials because these are generally fully recyclable. However, for special requirements, it is often more effective to use composite materials.

The shell of the VS eddy toolbag consists of a combination of compacted natural and synthetic fibers - a laminated structure of natural fiber-reinforced polypropylene (NFPP) and polyester. The surface may be made of felt (80% polyester, 20% viscose), polyethylene with a carbon appearance, or a robust polyester-based material.

At VS, felt is also used for glides in school chairs and screens at desks. We use 100% synthetic, fully-recyclable PES felt. The natural material, cork, is used for bulletin boards.

Cork linoleum is made from the combination of linseed oil, resins, cork, and color pigments, giving it the flexibility and elasticity as well as remarkable durability. It is ideal for use on bulletin boards, boards, and desks. It is elasticated, so no visible marks remain from the use of drawing pins and tacks.

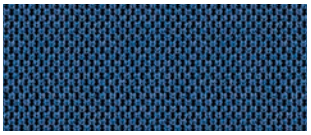
MISCELLANEOUS

V1
Composite materials

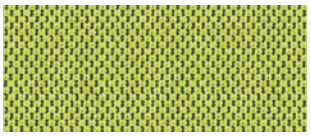
V 001: brown

V 002: grey

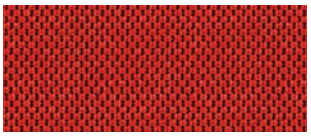
V2
Composite materials



V 279: blue



V 281: green



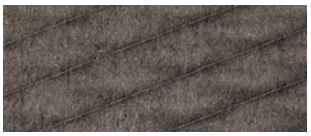
V 302: red

V4

V 003: carbon optic

Fi1
Felt

Fi 080: anthracite



Fi 081: warm grey

Fi 082: green (CUZ1K-2307)

K1
Cork

K 081: sand

K 082: grey

K 039: natural cork (085)

CONTACT VS AMERICA

Our team is here to help you every step of the way, from concept to completion. Don't hesitate to reach out to us for assistance as you explore our ergonomic, mobile furniture solutions.

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Website: www.vsamerica.com

We look forward to hearing from you.

Materials by VS

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art no. MAT 3/15/20 V02