inwerk

Marke Toro

FARBEN DEKORE MUSTER STOFFE

FINISHES: TECHNICAL SPECIFICATIONS

Surfaces

General

Chairs

Marke Toro

Dekore

FARBEN

DEKORE

MUSTER

STOFFE

FINISHES

Melamine 02
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Compac laminate 02
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MFC - HPL - COMPACT LAMINATE

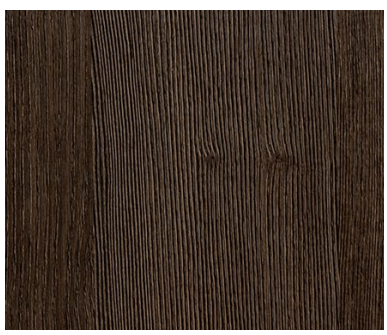
	LIME OAK	MAPLE	LIGHT OAK	CHESTNUT	DARK OAK	WHITE	COCO GREY	BLACK	ANTI-FINGER-PRINT BLACK
MFC	11	18	10	07	14	00	15	08	03
C.LAMINATE						30		38	
* HPL						*20			

* ONLY FOR PROJECTS

LIME OAK *MAJESTIC ACACIA*

LIGHT OAK **ROBLE NEW*

CHESTNUT *NOGAL NAB*



DARK OAK *FRESNO AHUMADO*

WHITE *GRIS UGN*

COCO GREY *GRIS COCO*

BLACK

ANTI-FINGERPRINT BLACK

WHITE HPL - WRITING SURFACE

MAPLE (18) FINISH WILL BE DISCONTINUED ONCE THE STOCKS FINISHED

MELAMINE TECHNICAL SPECIFICATIONS

High density particle desk top with FSC certification covered in heavyweight laminate. It presents an optimal surface, silky to touch with high durability and 100% recyclable.
Optimal surface characteristics according to the standard EN 14322
Optimal brightness values for working plans according to UNE 89401-2
Perfect machined characteristics
This product meets the requirements of Class E1 as defined in European Standard EN 14322:2017.
Surfaces manufactured from chipboard and hot melt laminated surfaces certified to US EPA TSCA Title VI and CARB Phase 2 emission standards and products with reduced formaldehyde emission E05 (< 0.05 ppm EN 717-1).

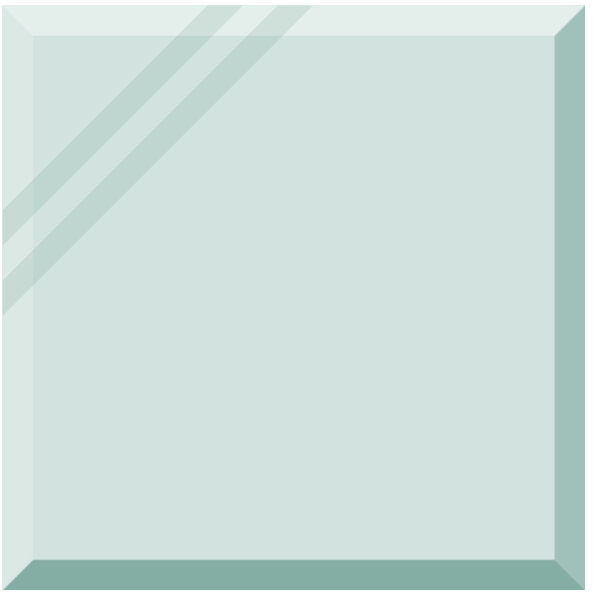
LAMINATE TECHNICAL SPECIFICATIONS

High-density particle board made with PEFC certification and 0.7mm thick high pressure laminate (HPL) coatings with thermosetting resins.
Excellent scratch resistance, extreme chemical and moisture resistance.
Completely non-toxic, resistant and easy to clean.
High Pressure Laminates (HPL):
Manufactured using several sheets of Kraft paper impregnated with phenolic resins with a sheet of decorative paper impregnated with melamine resins applied to one or both surfaces. The resin is cured in special presses, using the combined and coordinated action of heat (150ºC) and pressure (90kg/cm2)

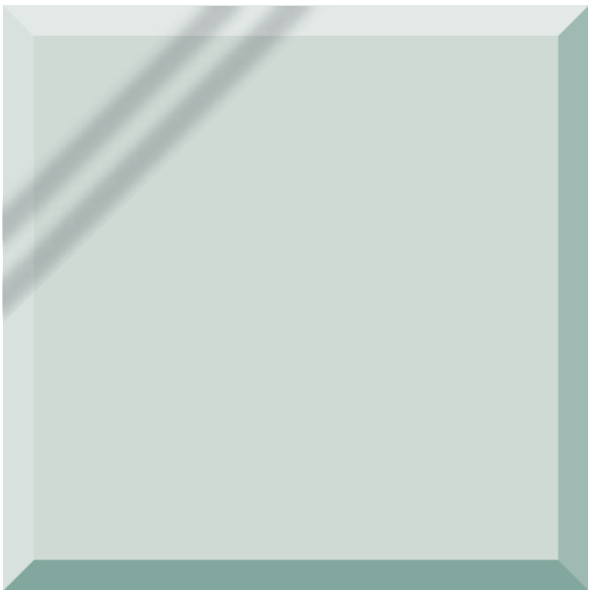
COMPACT LAMINATE TECHNICAL SPECIFICATIONS

Compact desktop of 13 mm thickness and black coloured core manufactured entirely of high-pressure laminate (HPL) with termoestables phenolic resins.
Great resistance to abrasion, scratches and impact.
Resistance to water, moisture and high levels of steam
Highly resistant to many chemical products.
Hygienic.

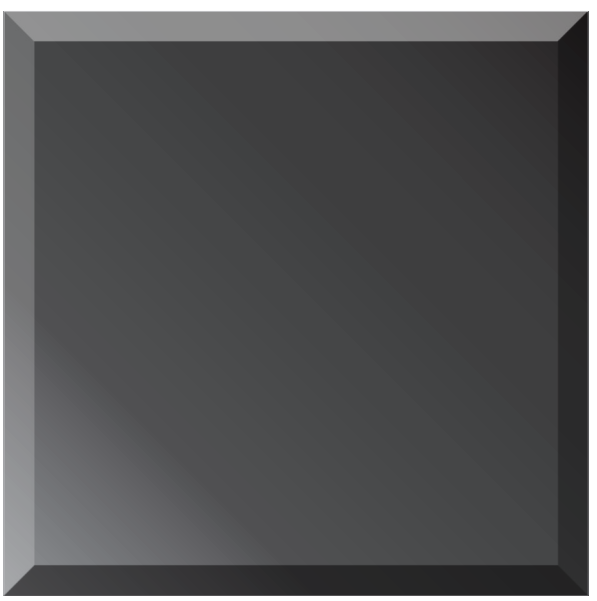
GLASS



51 CLEAR



50 FROSTED



59 BLACK

52 WHITE

TECHNICAL SPECIFICATIONS GLASS

Laminated Security glass with internal translucent layer. Thickness available in 5+5 and 6+6 mm for desk surfaces. 4+4 mm for Screens, reception counter front panels and glass doors.

The laminated glass is the result of linking tow or more glass sections, linked by PVB layers (butiral polivinil). This material comines the specific glass properties such as transparency and durability, and the proper PVB features such as adhesion to the glass, elasticity and impact resistance, acoustic and UV protection, as well as providing different colour ranges.

The high elasticity of the PVB provides a high impact resistance, so before an impact on the glass, the PVB layer absorbs the impact energy and due to the adhesion, keeps linked to the glass

Extra clear tempered glass

Low level of iron oxide, it offers colourless luminosity (with not green tones) 10 mm thickness. The tempered glass has maximum high scratch and impact resistance. 100% Recyclable.

METAL

00/70 WHITE

05 DARK BLUE

07 SILVER POLISHED

01 GRIS

15 PISTACHIO

09 CHROME

02/72 SILVER

14 ORANGE

10/78 BLACK

77 BURGUNDY

TECHNICAL SPECIFICATIONS METAL

All metal components, aluminum or steel, have epoxy-polyester finish. No toxic or solvent elements. Chromed finished is done over treated steel.

PAINTING FEATURES

1 – Electrostatic coat, epoxy bonding 2nd generation. Polymerized 200ºC with nano-ceramics and non-grease treatments to improve better covering and increase resistance to erosion and provide then better resistance and lasting.

2 – Coating 80-90 micron thickness (it could be different as per the project requirements).

This covering guarantees the finish and maintenance of metal structures.

3 – Painting process:

Painting plant has minimum environmental impact against the traditional industry processes.

Treatment is done by polarized coating and compacted with temperature. We get homogeneous and regular application with 98% of painting and the remaining 4% is used to produce other paints. Paints used are COVs free (Volatile Organic Components) which are very dangerous for the environment. All water used in the process is re-used, so we get zero dump.

4 – Antibacterial finish (Optional)

METHACRYLATE P.M.M.A.

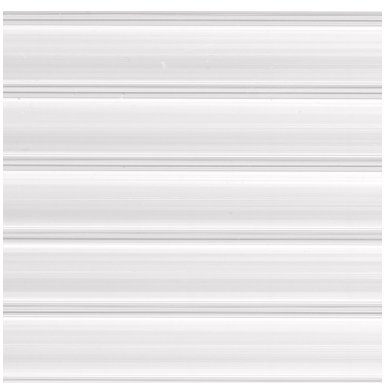
90 WHITE

91 CLEAR

98 LIME GREEN

97 STRAWBERRY

POLYCARBONATE



42 FROSTED

METHACRYLATES TECHNICAL SPECIFICATION

METHACRYLATE (PMMA)

Methacrylate is an ester type amorphous thermoplastic, transparent and colourless with great hardness. It possesses a high resistance to tensile and impact and has excellent clarity. Good resistance to weather, the most durable plastic under these conditions (including sun, rain, salt fog and pollution). It does not yellow nor crack against the action of UV rays. We recommend that you clean it with soap and water making sure to use a soft cloth that does not contain traces of particles that may scratch the material.

POLYCARBONATE (PC)

Polycarbonates are a group of easy working, molding and thermoforming, thermoplastics with resistance to extremely high impact, high transparency and rigid. Resistant to thermal deformation and weather, with high dimensional stability and good electrical insulation properties.

PET

IP21 BEIGE

PET ECO TECHNICAL SPECIFICATION

Recycled textile fibre

Density:
9 mm: 155 kg/m3
12 mm: 190 Kg./m3

Fire resistance:B, s1, d0 Fireproof.
Complies with CTE DB-SI.
Suitable for public premises.

OEKO-TEX® Certificate
STANDARD 100

CE certified
EN 15102:2007 + A1:2011

Made in Spain

BOARD DESCRIPTION

We use high density board 590-680 kg/m^3 providing optimum strenght and stability for our products.

MELAMINE DESCRIPTION

90 and 120 grs./m^2 density Melamine faced board available in 16, 19, 25 and 30 mm thick. 2mm thermobonded edging radiused 2 mm.

MELAMINE DENSITY

Exclusive High density melamine face (120 grs./m^2 density) for the wooden finishes and 90 gr/m^2 for the plain colours. Due to the high density our tops provide high resistance to humidity and scratch too.

TACT AND BRIGHTNESS

Due to the special grain included in surfaces, you can feel a real wood effect at the same time that is not bright finish so it is healthy to work with.

HIGHER DENSITY NEXT TO THE EDGES OF THE BOARD

The parts next to the top and bottom of the board has a higher density provising stronger ressisstance to metal inserts and other mechanical actions over the product.

EXCLUSIVE DESIGNED EDGING

The edging is exclusively designed and manufactured, providing a high quality finish to the product. The edge is 2 mm thick radiused 2 mm.

TECHNICAL DATA-AVERAGE VALUES (MELAMINE)

TOLERANCE ON NOMINAL DIMENSIONS (MELAMINE)					
TEST METHOD	PROPERTIES	UNITS	THICKNESSES mm		
			<15	15-20	>20
UNE-EN-14323	Thickness on nominal Dimensions	mm	+/-0,3 (AI,AV) +0,5/-0,3 (AH)	+/-0,3 (AI,AV) +0,5/-0,3 (AH)	+/-0,5
UNE-EN-14323	Thickness within the board	mm	max-min <0,6	max-min <0,6	max-min <0,6
UNE-EN-14323	Lenght & width	mm	+/-5	+/-5	+/-5
UNE-EN-14323	Flatness	mm/m	—	≤2	≤2

COATING PROPERTIES (MELAMINE)			
UNE-EN-14323	Resistance to scratching	N	≥15
UNE-EN-14323	Resistance to cracking	rating	≥3
UNE-EN-14323	Surface aspect	rating	4
UNE-EN-14323	Resistance to staining	rating	≥3
VISUAL DEFECTS			
UNE-EN-14323	Edges damaged	mm	≤10
UNE-EN-14323	Surface defects. Points	mm^2/m^2	≤2
UNE-EN-14323	Surface defects. Lenght	mm/m^2	≤20

	Resistance to abrasion	CLASS	IP NUMBER OF TURNS	WR NUMBER OF TURNS
UNE-EN-14323	Resistance to abrasion. Designs (general applica-tions)	1	<50	<150
UNE-EN-14323	Resistance to abrasion. Uni-colors and horizontal Applications AH	3A	≤150	≥350

- Melamine fulfill the standard **UNE-EN-14322** as regards the low content on formaldehyde as per the **CLASS E1**

BOARD DESCRIPTION

High Pressure laminate (HPL) with 25 mm particle board core. 3 mm ABS thermobonded edging, radiused R=2 mm. It is high resistance to skratcehs, impact and easy to clean and maintenance. Its best selling features are:

Special surface treatment for higer wear resistance.

Resistance to impact and punching.

Surface resistance to chemical agents, domestic and matches.

TECHNICAL FEATURES (HPL)

Material consisting of layers of **Kraft paper** impregnated with thermosetting resins and a surface layer of decorative paper impregnated with aminoplastic resins, all bonded together by means of high pressure (9 Mpa) and high temperature (150°C). It is also available in flame retardant version, where fire retardant additives are mixed to phenolic resins.This material is produced in conformity to **EN 438-3:2005.**

TECHNICAL FEATURES (HPL)					
PROPERTY	TEST METHOD (EN 438:2005)	PROPERTY OR ATTRI-BUTE	UNIT	VALUES HGS-HGF	VALUES VGS-VGF
Thickness ± tolerance	EN 438 - 2.5	Thickness (t)	mm	0,5 ⩽ t ⩽ 1,0 ±0,10 1,0 < t < 2,0 ±0,15	0,5 ⩽ t ⩽1,0 ±0,10 1,0 < t < 2,0 ±0,15
Flatness	EN 438 - 2.9	Maximum deviation	mm/mtl	60	60
Resistance to surface wear	EN 438 - 2.10	Wear resistance	revs	IP ⩾ 150 A ⩾ 350	IP ⩾ 50 A ⩾ 150
Resistance to immersion in boiling water	EN 438 - 2.12	Appearance gloss finish Appearance other finishes	rating	⩾ 3 ⩾ 4	⩾ 3 ⩾ 4
Resistance to dry heat 180º C	EN 438 - 2.16	Appearance gloss finish Appearance other finishes	rating	⩾ 3 ⩾ 4	⩾ 3 ⩾ 4
Resistance to wet heat 100º C	EN 12721	Appearance gloss finish Appearance other finishes	rating	⩾ 3 ⩾ 4	⩾ 3 ⩾ 4
Dimensional stability at elevated temperature	EN 438 - 2.17	Cumulative Dimensional change	% long. % trasv.	⩽ 0,55 ⩽ 1,05	⩽ 0,75 ⩽ 1,25
Resistance to impact by small diameter ball	EN 438 - 2.20	Spring force	N	⩾ 20	⩾ 15
Resistance to cracking	EN 438 - 2.23	Appearance	rating	⩾ 4	⩾ 4
[1] Resistance to scratching	EN 438 - 2.25	Force	rating	⩾ 3	⩾ 2
Resistance to staining	EN 438 - 2.26	App. groups 1-2 Appear. groups 3	rating	5 ⩾ 4	5 ⩾ 4
Lightfastness	EN 438 - 2.27	Contrast	grey scale rating	⩾ 4	⩾ 4
Resistance to cigarette burns	EN 438 - 2.30	Appearance	rating	⩾ 3	⩾ 3
Resistance to water vapour	EN 438 - 2.14	Appearance gloss finish Appearance other finishes	rating	⩾ 3 ⩾ 4	⩾ 3 ⩾ 4
Electrical resistance	NF PA 99	-	Ohm	10^{8} - 10^{11}	10^{8} - 10^{11}
Volume electrical resistance	EN 61340 - 4-1	Rv (23°C /50% RH)	Ohm	10^{9} - 10^{11}	10^{9} - 10^{11}
Density	ISO 1183	Density	g/cm^3	⩾ 1,40	⩾ 1,40

[1] Resistance to scratching is depending from finish and colour. Note: The colour of individual lots may vary as a result of the technology and tyte of pigment used. Pay attention to the direction of the texture.

FIRE PERFORMANCE (HPL)			
TEST METHOD	STANDARD	CLASSIFICATION	
		HGF/VGF	HGS/VGS
Small flame and radiant panel	UNE-8457 UNE-9174 UNE-9177	class 1	class 2
Spread of flame	BS 476-7	class 1	class 2
Shaft Brand	DIN4102-1	B1	B2
Epiradiator	NF P 92-501	M1	min. M3
Smoke density and toxicity	NF F 16-101	min F2	min F2
Heat release	IMO Res. A 653(16)	pass	pass

Note: Fire test performance will depend on laminate thickness and construction, substrate type and thickness, and adhesive used.

BOARD DESCRIPTION

Compact Laminate board 13 mm thickness, manufactured by high pressure laminated phenolic resins. Black core, and white (a kind of grey touch), wengue or blacke top. High pressure Laminate support the pressure 90kg/cm^2 and 150ºC temperature in special presser which provides the resins polycondensation.

TECHNICAL FEATURES (HPL)

2 mm thickness Material or thicker (maximum 30 mm). It is formed by kraft paper layers impregnate by resins and one or two decorative paper layers are impregnated with aminoplastic resin pressed 9MPa and 150ºC. HPL layer is available at any thickness with decorative papers in both sides. From 2 to 4 mm thickness is also available in one face only. This material is manufactured according to the Standard **EN 438-4:2005.**

TECHNICAL FEATURES (HPL)					
PROPERTY	TEST METHOD (EN 438:2005)	PROPERTY OR ATTRI-BUTE	UNIT	VALUES CGS	VALUES CGF
Thickness ± tolerance	EN 438 - 2.5	Thickness (t)	mm	2,0 ≤ t < 3,0 3,0 ≤ t < 5,0 5,0 ≤ t < 8,0 8,0 ≤ t <12,0 12,0 ≤ t < 16,0 16,0 ≤ t < 20,0 20,0 ≤ t < 25,0 25,0 ≤ t	± 0,20 ± 0,30 ± 0,40 ± 0,50 ± 0,60 ± 0,70 ± 0,80
Flatness	EN 438 - 2.9	Maximum deviation	mm/mtl (1 side dec.)	50 (2,0 ≤ t ≤ 4,0)	50 (2,0 ≤ t ≤ 4,0)
			mm/mtl (2 side dec.)	8,0 (2,0 ≤ t ≤ 6,0) 5,0 (6,0 ≤ t ≤ 10,0) 3,0 (10,0 ≤ t)	8,0 (2,0 ≤ t ≤ 6,0) 5,0 (6,0 ≤ t ≤ 10,0) 3,0 (10,0 ≤ t)
Resistance to surface wear	EN 438 - 2.10	Wear resistence	rvs	IP ≥ 150 A ≥ 350	IP ≥ 150 A ≥ 350
Resistance to immersion in boiling water	EN 438 - 2.12	Mass increase	%	≤ 5 (2 ≤v t < 5) ≤ 2 (5 ≤ t)	≤ 7 (2 ≤v t < 5) ≤ 3 (5 ≤ t)
		Thickness increase	%	≤ 6 (2 ≤v t < 5) ≤ 2 (5 ≤ t)	≤ 9 (2 ≤v t < 5) ≤ 6 (5 ≤ t)
		Appear. gloss finish Appear. other finish	rating	≥ 3 ≥ 4	≥ 3 ≥ 4
Resistance to dry heat 180º C	EN 438 - 2.16	Appear. gloss finish Appear. other finish	rating	≥ 3 ≥ 4	≥ 3 ≥ 4
Resistance to wet heat 100º C	EN 12721	Appear. gloss finish Appear. other finish	rating	≥ 3 ≥ 4	≥ 3 ≥ 4
Dimensional stability at elevated temperature	EN 438 - 2.17	Cumulative dimensional change	% long. % trasv.	(2 ≤ t ≤ 5) 0,40 0,80	(2 ≤ t ≤ 5) 0,40 0,80
			% long. % trasv.	(5 ≤ t) 0,30 0,60	(5 ≤ t) 0,30 0,60

PROPERTY	TEST METHOD (EN 438:2005)	PROPERTY OR ATTRI-BUTE	UNIT	VALUES CGS	VALUES CGF
Res. to impact by large diameter ball	EN 438 - 2.21	Drop height Indentation diameter	mm (min)	1400 (2 ≤ t < 6) 1800 (6 ≤ t)	1400 (2 ≤ t < 6) 1800 (6 ≤ t)
			mm (max)	10	10
Resistance to crazing	EN 438 - 2.24	Appearance	rating	≥ 4	≥ 4
[1] Resistance to scratching	EN 438 - 2.25	Smooth finishes Texture finishes	rating	≥ 2 ≥ 3	≥ 2 ≥ 3
Resistance to staining	EN 438 - 2.26	Appear. groups 1-2 Appear. groups 3	rating	5 ≥ 4	5 ≥ 4
Lightfastness	EN 438 - 2.27	Contrast	grey scale rating	≥ 4	≥ 4
Resistance to cigarette burns	EN 438 - 2.30	Appearance	rating	≥ 3	≥ 3
Resistance to water vapour	EN 438 - 2.14	Appear. gloss finish Appear. other finish	rating	≥ 3 ≥ 4	≥ 3 ≥ 4
Electrical resistance	NF PA 99	-	Ohm	10^{8} - 10^{11}	10^{8} - 10^{11}
Thermal conductivity	DIN 52 612	-	W/m. ºK	0,25	0,25
Coefficient of linear thermal expansion	ASTM D 696	-	ºC-1	L = 1,6 x 10^{-5} ca. T = 3,5 x 10^{-5} ca.	L = 1,6 x 10^{-5} ca. T = 3,5 x 10^{-5} ca.
Tensile strenght	EN ISO 527-2	Stress	Mpa	L ≥ 100 T ≥ 70	L ≥ 100 T ≥ 70
Flexural strenght	EN ISO 178	Stress	Mpa	L ≥ 100 T ≥ 90	L ≥ 100 T ≥ 90
Flexural modulus (E)	EN ISO 178	Stress	Mpa	L ≥ 10.000 T ≥ 9.000	L ≥ 10.000 T ≥ 9.000
Density	ISO 1183	Density	g/cm^3	≥ 1,40	≥ 1,40

[1] Resistance to scratching is depending from finish and colour. Note: The colour of individual lots may vary as a result of the technology and tyte of pigment used. Pay attention to the direction of the texture.

FIRE PERFORMANCE (HPL)

TEST METHOD	STANDARD	CLASSIFICATION	
		CGF	CGS
Small flame and radiant panel	UNE-8457 UNE-9174 UNE-9177	class 1	class 1
	UNI CEI 11170-3	class 1A	/
Spread of flame	BS 476-7	class 1	class 1
Brandschacht	DIN4102-1	B1	B2
Epiradiateur	NF P 92-501	M1	M2
Smoke dendity and toxicity	NF F 16-101	min F2	min F2
Reaction to fire	EN 13501-1	(t ≥ 3) B-s2,d0 [2]	(t ≥ 6) C-s2,d0 [2]

[2] The laminate manufacturer should be contacted for details of fire test reports and certifications held, and for information on fire test methods and specifications.

DESCRIPTION

Laminated Security glass with internal translucent layer. Thickness available in 5+5 and 6+6 mm for desk surfaces. 4+4 mm for Screens, reception counter front panels and glass doors.

The laminated glass is the result of linking tow or more glass sections, linked by PVB layers (butiral polivinil). This material comines the specific glass properties such as transparency and durability, and the proper PVB features such as adhesion to the glass, elasticity and impact resistance, acoustic and UV protection, as well as providing different colour ranges.

The high elasticity of the PVB provides a high impact resistance, so before an impact on the glass, the PVB layer absorbs the impact energy and due to the adhesion, keeps linked to the glass

Extra clear tempered glass
Low level of iron oxide, it offers colourless luminosity (with not green tones) 10 mm thickness. The tempered glass has maximum high scratch and impact resistance. 100% Recyclable.

TECHNICAL FEATURES:

TECHNICAL FEATURES				
FEATURES	COMPOSITION	LEVEL HOMOLOGATION	UNIT	STANDARDS
Impact resistant	4+4 (0,38-PVB) 5+5 (0,38-PVB) 6+6 (0,38-PVB)	Level A Level A Level A		**EN 12 600** **EN 12 600** **EN 12 600**
Acoustic properties	4+4 (0,38-PVB) 5+5 (0,38-PVB) 6+6 (0,38-PVB)		34 Rw (DB) 35 Rw (DB) 38 Rw (DB)	

METAL (FEATURES)

All metal components, aluminum or steel, have epoxy-polyester finish. No toxic or solvent elements. Chromed finished is done over treated steel.

PAINTING (Features)

1 – Electrostatic coat, epoxy bonding 2nd generation. Polymerized 200ºC with nano-ceramics and non-grease treatments to improve better covering and provide then better resistance and lasting.
2 – Coating 80-90 micron thickness (it could be different as per the project requirements).
This covering guarantees the finish and maintenance of metal structures.
3 – Painting process:
Painting plant has minimum environmental impact against the traditional industry processes.
Treatment is done by polarized coating and compacted with temperature. We get homogeneous and regular application with 98% of painting and the remaining 2% is used to produce other paints. Paints used are COVs free (Volatile Organic Components) which are very dangerous for the environment. All water used in the process is re-used, so we get zero dump.
4 – Antibacterial finish **(Optional)**

Marke Toro

Stoffmuster

FARBEN

DEKORE

MUSTER

STOFFE

GROUP 0

Fabric T

T85 T77 T37 T27 T70 T58 T61 T89 T87 T82 T64 T84

GROUP 1

Fabric U

U15 U21 U20 U22 U25 U23 U24 U19 U17 U14 U12

Fabric AE

AE82 AE84 AE92 AE37 AE21 AE44 AE62 AE69 AE16 AE14 AE08

Fabric AI

AI90 AI89 AI44 AI42 AI58 AI53 AI66 AI13 AI08 AI23 AI25

Fabric AO

AO90 AO34 AO59 AO62 AO16 AO08

Fabric AL

AL90 AL34 AL59 AL62 AL16 AL08

Fabric AN

AN08

GROUP 5

Fabric P

P10 P11 P18

GROUP 2

Fabric V

V15 V11 V20 V21 V12 V13 V18 V19 V17 V10

Fabric D

D11 D14 D21 D16 D13 D18 D15 D22 D12

Fabric M

M16 M92 M12 M76 M62 M58 M46 M90 M91 M77 M93

M14 M22 M19 M17 M63 M10 M49 M20 M89

Fabric S

S30

Fabric H

H12

GROUP 3

Fabric A

A11 A27 A25 A17 A20 A13 A18 A16 A22

Fabric Q

Q41 Q40 Q46 Q49 Q43 Q44 Q42

Fabric R

R37 R34 R33 R39 R35 R32

FINISHES

Fabrics Group 0

- Fabric "T" 03

Fabrics Group 1

- Fabric "U" 06
- Fabric "AE" 08
- Fabric "AI" 10
- Fabric "AO" 12
- Technical Mesh "AL" 14
- Fabric "AN" 16

Fabrics Group 2

- Fabric "V" 19
- Fabric "D" 21
- Fabric "M" 23
- Fabric "M" 25
- Technical Mesh "S" 27
- Technical Mesh "H" 29

Fabrics Group 3

- Technical Mesh "Q" 32
- Technical Mesh "R" 34
- Fabric "A" 36

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- Fabric "P" 39

Other Finishes

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- Beech Lacquered Plywood 44
- Poliurethane 46
- Thermoplastic 48
- **ECO** Thermoplastic 50
- Metal 52
- Cleaning and protection 54

FABRICS

GROUP 0

FABRIC "T"

T - 100% POLYESTER® NON METALLIC DYESTUFFS

GROUP 0

BS A099 **T61**	BS A755 **T37**	BS G132 **T27**	BS A005 **T89**	BS A462 **T77**	BS FR 904 **T70**
BS A026 **T87**	BS A105 **T85**	BS 502 **T64**	BS FR 1801 **T84**	BS A301 **T58**	BS A009 **T82**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS - FABRIC "T"
BASIC F.R. - EXIT FABRICS

Sectors	Contract | Office | Leisure | Decoration |Home	
Aplications	Armchairs, Chairs, Sofas, Stools, Puffs, Retail, Leather, Office furniture, Home furniture, Screens, Acoustic panels, Curtains, Decoration accessories	
Description	Basic is a fire-resistant crepe fabric made of 100% polyester. Versatile and functional, this is a popular collection for upholstering office furniture (chairs, dividers, seats, etc.). With a range of 58 colours in the catalogue and the possibility of creating custom colours, Basic F.R is offered as an optimal solution.	
Features	Flame retardant | Indoor use | High resistance to abrasion | Stretch | Eco-clean optional | Acoustic absorption |Long durability	
Composition	Polyester	100%
Width	gr/m2 ± 5% gr/ml ± 5%	335 470
Weight	cm (+/- 2%)	140
Long	meters (+/- 10%)	45
Abrasion resistance	EN ISO 12947-2 Martindale cycles	 45.000
Pilling	EN ISO 12945-2 (scale 1-5; 5 best value)	 4-5
Colour fastness to light	EN ISO 105-B02 Method 2 (scale 1-8; 8 best value)	 5-6
Colour fastness to rubbing	EN ISO 105-X12 Dry / Wet	 4 / 4
Tear resistance	EN ISO 13937-3 Warp / Weft	 140 N / 110 N
Acoustic absorption	EN ISO 10534-2 Acoustic absorption peak	 0,9
Flammability	UE: EN 1021 1/2 UK: BS 5852 0 UK: BS 7176 Low Hazard USA: CAL TB 117 Section 1 USA: NFPA 260 Class 1 Regulation n° 118 UNECE Annex 6 IMO MSC.307 (88) Annex I Part 8 Flammability performance is dependent on foam used.	
Maintenance	Vacuum regularly. In case of stains, use a damp cloth with neutral soap suitable for cleaning of upholstery products. We would be delighted to attend to you if you have any doubt that may arise regarding this or other information.	
Colour matching	Variations can occur from one tint to another (3%)	
Subject to changes and colour diferences		

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRICS GROUP 1

FABRIC "U"

GROUP 1

87% COATING: PVC
5% TEXTILE: CO
8% TEXTILE: PES

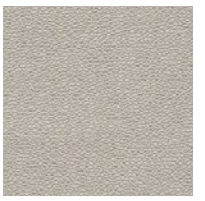
10019 U12

01150 U14

02610 U15

02640 U17

02618 U19


02641 U20

04016 U21

09596 U22

09597 U23

02613 U24

02608 U25

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS FABRIC "U"
LAGUNA - MONTEIRO FABRICS

Material	Coating: PVC	87%
	Textile: CO	5%
	Textile: PES	8%
Weight	g/m^2 - DIN 53352	660
Width	cm	137 - 140
Thickness	mm	0,90 - 1,10
Abrasion resistanceCleaning	ISO 5470-2 (Martindale cycles)	100.000
Flammability	Rub gently with damp cloth or sponge. Do not use multi-purpose products	
Antibacterial / antifungal	EN1021 1&2 FMVSS302 UNI 9175 1.IM, NF P 92-507 - M2 Reg. N 118: Annex 6,7	

Subject to changes and colour diferences

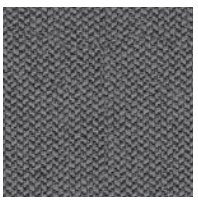
In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRIC "AE"

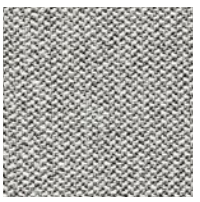
AE - 100% POLYESTER®

GROUP 1

Task seating | Soft seating | Cigarette & Match | Washable | Bleach cleanable | Acoustic | Medium Hazard

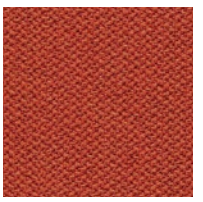


CSE13 **AE14**

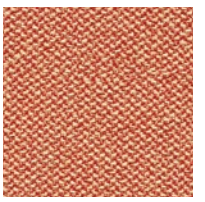


CSE45 **AE16**

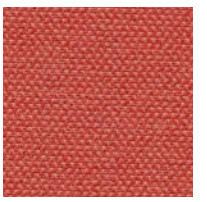
CSE01 **AE21**



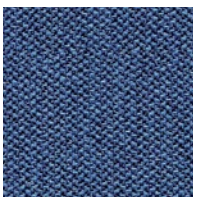
CSE29 **AE92**



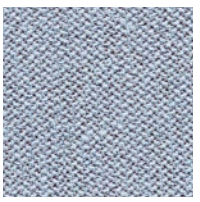
CSE25 **AE82**



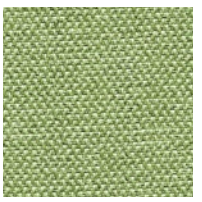
CSE26 **AE84**



CSE42 **AE69**

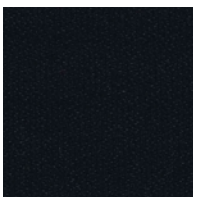


CSE39 **AE62**



CSE34 **AE44**

CSE03 **AE37**



CSE14 **AE08**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS - FABRIC "AE"
ERA - CAMIRA

Sectors	Contract | Office |	
Environment	Certified to OEKO-TEX® Standard 100 Certified to Indoor Advantage™ Gold Non metallic dyestuffs	
Composition	Polyester	100%
Weight	gr/m2 ± 5% gr/ml ± 5%	320 448
Width	cm (+/- 2%)	140
Abrasion resistance	Heavy duty / 10 year guarantee Independently certified to ≥100,000 Martindale cycles	≥100,000
Colour fastness to light	EN ISO 105-B02 Method 2 (scale 1-8; 8 best value)	5
Colour fastness to rubbing	EN ISO 105-X12 Dry / Wet	4 / 4
Bleach Cleanable	ISO 105 E03 colour change 4 for dilution factor 1:4 chlorine solution	
Acoustic Properties	Acoustically transparent, acoustic graphs available upon request.	
Inflamabilidad	EN 1021 - 1 (cigarette) EN 1021 - 2 (match) BS 7176 Low Hazard EN 13501-1 Adhered Class B, s1, d0 EN 13501-1 Un-adhered Class C, s1, d0 **Optional: Please specify when ordering:** BS 5852 Ignition Source 5 with EnviroFlam5 BS 7176 Medium Hazard with EnviroFlam5 The Furniture and Furnishing (Fire Safety) Regulations 1988 (UK domestic cigarette and match) with EnviroFlam5 Note: Flammability performance is dependent on components used. Our certificates show what substrates have been used in our tests. For composite tests customers must ensure their complete furniture meets the necessary standards.	
Cleaning	Vacuum regularly. Wipe with a damp cloth using a proprietary upholstery shampoo/soap. For deeper cleaning use steam, bleach, alcohol or professionally dry clean. Can be washed at 60°C. Full details can be found in our cleaning and disinfection guide.	
Subject to changes and colour diferences		

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

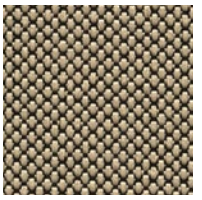
FABRIC "AI"

AI - 100% POLYESTER®

GROUP 1

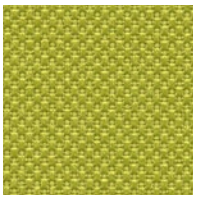
4037 **AI90**

1010 **AI23**

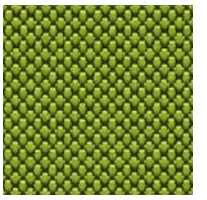


1510 **AI25**

4017 **AI89**



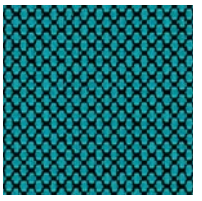
7025 **AI42**



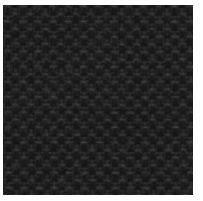
7541 **AI44**

6598 **AI66**

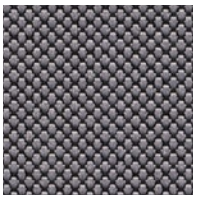
7045 **AI58**



6526 **AI53**



8033 **AI08**



8532 **AI13**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS GROUP "AI"
RADIO - FIDIVI

Material	polyester FR	100%
Weight	gr/m2 ± 5% (EN 12127) gr/ml ± 5% (EN 12127)	560 400
Width	cm ± 2%	140
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale) ± 10%	80.000
Piling	scale 1-5, max. 5 - EN ISO 12945-2	5
Colour fastness to light	scale 1-8, max. 8 - EN ISO 105 - B02 (Xenotest)	6
Colour fastness to rubbing	scale 1-5, max. 5 - EN ISO 105X12 (wet/dry) (Crockmeter)	4-5/4-5
Cleaning	Wash or dry cleaning P (W)	
Flammability	UNI 9174 - 8456 Class C1 UNI 9175 Class 1 IM DIN 4102 Class B1 NF 92501-7 Class M1 NF D 60013 Class AM18 EN 1021-1 & 2 BS Crib 5 BS 7176 Class Medium Hazard EN 13773 Class 1 OENORM 3800-1 Class B1,Q1,TR1 California TB117 USA NFPA 701 USA NFPA 260 Will also pass other flammability standards. Flame retardant performance is dependent upon the foam used	
Environment	Certificado de OEKO-TEX® Standard 100	
Subject to changes and colour diferences		

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

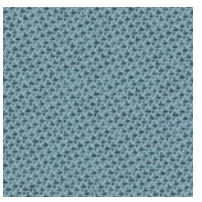
FABRIC "AO"

A0 - 99% POST-CONSUMER RECYCLED POLYESTER® / 1% POLYESTER®

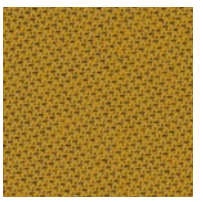
GROUP 1

60999 **AO08**

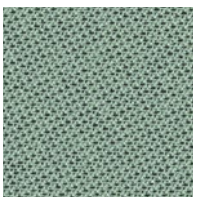
60122 **AO16**



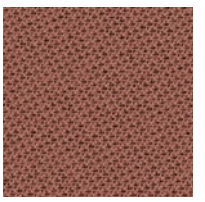
66185 **AO62**



62057 **AO34**



67089 **AO59**



64210 **AO90**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS GROUP AO
TONAL - GABRIEL

Material	Post-consumer recycled polyester Polyester	99% 1%
Weight	2490: lin. metre aprox. grams 2495: lin. metre aprox. grams	315 385
Width	2490 - cm 2495 - cm	140 170
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale) double rubs wyzenbeek (ASTM D4157-07) (heavy duty upholstery)	100.000 100.000
Piling	scale 1-5, max. 5 - EN ISO 12945-2	4-5
Colour fastness to light	scale 1-8, max. 8 - EN ISO 105 - B02	6 - 8
Colour fastness to rubbing	scale 1-5, max. 5 - EN ISO 105X12 (wet/dry)	4-5/4-5
Cleaning	Wash or dry cleaning P (W) Felicity is made of polyester which is a material suited for environments with special requirements for cleaning. 60°C shrinkage máx. 2,5%.	
US ACT	ASTM D4157-07 Wyz abrasion (heavy duty) 100k ASTM D3511 Pilling AATCC 16 Light fastness AATCC 8 o 116 Wet/dry crocking CA TB 117-2013 ASTM E 84 Class I Abrasion test results exceeding ACT Performance Guidelines are not an indicator of product lifespan	PASS PASS PASS PASS PASS PASS
Acoustic test air flow resistance	EN 29053 & ISO 9053-1 (airflow resistance)	
Flammability	CA TB 117-2013 ASTM E 84 Class I BS EN 1021 1&2 Cigarette and Match BS EN 1021-1 Cigarette BS 476 Part 7 class I DIN EN 13501-1 B-s1,d0(glued) Will also pass other flammability standards. Flame retardant performance is dependent upon the foam used. Contains no flame retardant chemicals.	
Environment	STANDARD 100 by OEKO-TEX® EU Ecolabel	

Subject to changes and colour diferences

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

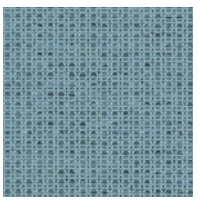
FABRIC "AL"

AL - 99% POST-CONSUMER RECYCLED POLYESTER® / 1% POLYESTER®

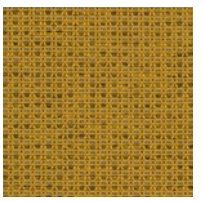
GROUP 1

60999 **AL08**

60122 **AL16**



66185 **AL62**



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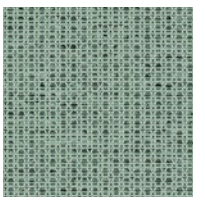
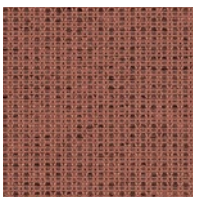


67089 **AL59**



64210 **AL90**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS GROUP AL
TALE - GABRIEL

Material	Post-consumer recycled polyester Polyester	99% 1%
Weight	lin. metre aprox. grams	365
Width	cm	140
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale) double rubs wyzenbeek (ASTM D4157-07) (heavy duty upholstery)	100.000 100.000
Piling	scale 1-5, max. 5 - EN ISO 12945-2	4-5
Colour fastness to light	scale 1-8, max. 8 - EN ISO 105 - B02	6 - 8
Colour fastness to rubbing	scale 1-5, max. 5 - EN ISO 105X12 (wet/dry)	4-5/4-5
Cleaning	Wash or dry cleaning P (W) Felicity is made of polyester which is a material suited for environments with special requirements for cleaning. 60°C shrinkage máx. 2,5%.	
US ACT	ASTM D4157-07 Wyz abrasion (heavy duty) 100k ASTM D3511 Pilling AATCC 16 Light fastness AATCC 8 o 116 Wet/dry crocking CA TB 117-2013 Abrasion test results exceeding ACT Performance Guidelines are not an indicator of product lifespan	PASS PASS PASS PASS PASS
Flammability	BS EN 1021-1 Cigarette BS EN 1021 1&2 Cigarette and Match CA TB 117-2013 Will also pass other flammability standards. Flame retardant performance is dependent upon the foam used. Contains no flame retardant chemicals.	
Environment	STANDARD 100 by OEKO-TEX® EU Ecolabel	

Subject to changes and colour diferences

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRIC "AN"

AN - 100% POLYESTER®

GROUP 1

8033 **AN08**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS GROUP "AN"
ONE - FIDIVI

Material	polyester FR	100%
Weight	gr/m2 ± 5% (EN 12127) gr/ml ± 5% (EN 12127)	525 350
Width	cm ± 2%	150
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale) ± 10%	100.000
Piling	scale 1-5, max. 5 - EN ISO 12945-2	5
Colour fastness to light	scale 1-8, max. 8 - EN ISO 105 - B02 (Xenotest)	6
Colour fastness to rubbing	scale 1-5, max. 5 - EN ISO 105X12 (wet/dry) (Crockmeter)	4/5
Cleaning	Wash or dry cleaning P (W)	
Flammability	UNI 9175 Class 1 IM EN 1021-1 & 2 BS 5852 CRIB 5 BS 7176 Class Medium Hazard California TB 117-2013 Will also pass other flammability standards. Flame retardant performance is dependent upon the foam used	
Environment	Certificado de OEKO-TEX® Standard 100	
Subject to changes and colour diferences		

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRICS

GROUP 2

FABRIC "V"

VINYL / URETHANE TOPCOAT

FIRE RETARDANT

GROUP 2

107-2062 **V15**

107-2113 **V11**

107-8032 **V20**

107-4044 **V21**

107-0002 **V12**

107-2107 **V13**

107-4042 **V18**

107-2108 **V19**

107-0001 **V17**

107-9035 **V10**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS GROUP V
VALENCIA - SPRADLING

Material	Vinyl / Urethane Topcoat		100%
Soporte	Hi-Loft²™	Specialty knitted textile manufactured with 100% polyester yarns aimed at creating a backing with bulk, strength, and unusual softness	
Finishes and treatments	PERMABLOK³® ADVANCED VINYL PROTECTION	· PERMA**BLOK³**®: Vinyl protective coating engineered to create a effective barrier for germs, abrasions and stains. · Cold Crack -23°C · Anti-stain Finish · Sulfide Stain Resistant · Mildew resistant backing and face · Anti-static Finish · UV-Resistance XENOTEST DIN 54004/ NTC 1479 · EN 71-3 Safety of Toys (Migration of certain elements)	
Weight	lin. metre aprox. grams		650
Width	cm		137
Abrasion resistance	rubs - EN ISO 12947:1999-2 (Martindale)		300.000
Flame Retardancy	EU: EN 1021 Part 1 & 2 ES: UNE 23.727-90 1R/M.2 FR: NF P 92-503/M2 DE: DIN 4102 B2 IT: UNI 9175 (1987) / UNI 9175/FA1 (1994) Classe 1.IM (UNO I EMME) AT: ÖNORM B 3825, Gruppe 1 - Schwerbrennbares Verhalten AT: ÖNORM A 3800 Teil 1, Qualmbildungsklasse Q1 - schwachqualmend IMO FTP 2010 Code MSC.307 (88) Part 8 3.1 & 3.2 US: FMVSS 302 US: FAR 25/853 (MED) Marine Equipment Directive (in its current valid version) ECE R118.02 (replaces Directive 95/28/CE) Annexes 6, 7 & 8 EN 71-2:2006+A1:2007 - Safety of Toys - Parte 2: Flammability Will also pass other flammability standards. Flame retardant performance is dependent upon the foam used and fireproof treatment.		
Subject to changes and colour diferences			

FIRE RETARDANT

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRIC "D"

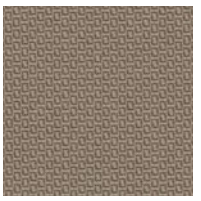
GROUP 2

FIRE RETARDANT

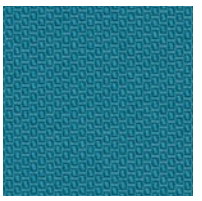
100% RECYCLED POLYESTER / FLAME RETARDANT

64190 **D11**

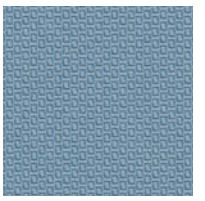
68179 **D14**



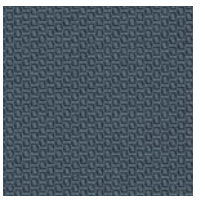
61164 **D21**



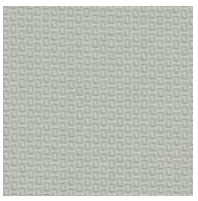
67079 **D16**



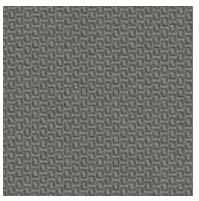
66161 **D13**



66162 **D18**



60105 **D15**



60106 **D22**

60999 **D12**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS GROUP D
FELICITY - GABRIEL

Material	100% post-consumer recycled polyester	100%
Weight	lin. metre aprox. grams	430
Width	cm	140
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale) double rubs wyzenbeek (ASTM D4157-07) (heavy duty upholstery)	90.000 100.000
Piling	scale 1-5, max. 5 - EN ISO 12945-2	5
Colour fastness to light	scale 1-8, max. 8 - EN ISO 105 - B02	5-7
Colour fastness to rubbing	scale 1-5, max. 5 - EN ISO 105X12 (wet/dry)	4-5/4-5
Cleaning	Wash or dry cleaning P (W) Felicity is made of polyester which is a material suited for environments with special requirements for cleaning. 40°C shrinkage máx. 1,5%. 60°C shrinkage máx. 2,5%.	
US ACT	ASTM D4157-07 Wyz abrasion (heavy duty) 100k ASTM D3511 Pilling AATCC 16 Light fastness AATCC 8 o 116 Wet/dry crocking CA TB 117-2013	PASS PASS PASS PASS PASS
Flammability	BS EN 1021 1&2 Cigarette and Match CA TB 117-2013 Will also pass other flammability standards. Contain no flame retardant chemical. Flame retardant performance is dependent upon the foam used and fireproof treatment.	
Certificates	Abrasion resistance - BS EN ISO 12947-2/14465 Breaking force - ASTM D5034 Breaking force Colour fastness to rubbing - BS EN ISO 105-X12 Pilling - BS EN ISO 12945-2 Seam slippage - BS EN ISO 13936-2 - ASTM D4034 Yarn slippage at a sewn seam Environment - Oeko-Tex - EU Ecolabel - Bronce Cradle to Cradle	
Subject to changes and colour diferences		

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

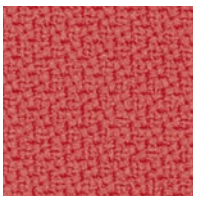
FABRIC "M"

GROUP 2

FIRE RETARDANT

100% TREVIRA CS / FLAME RETARDANT

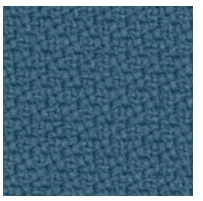
63075 **M93**



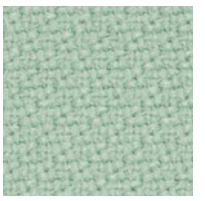
64178 **M77**

62057 **M91**

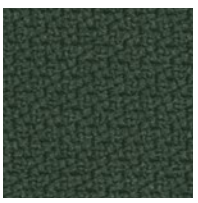
67004 **M62**



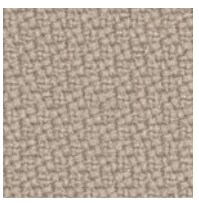
67007 **M76**



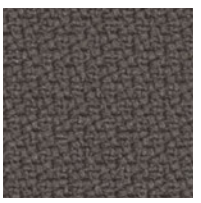
68118 **M58**



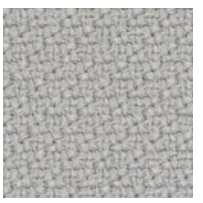
68161 **M46**



61149 **M90**



60090 **M92**



60004 **M16**

60999 **M12**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS GROUP "M"
STEP - GABRIEL

Material	Trevira CS	100%
Weight	lin. metre aprox. grams	470
Width	cm	140
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale)	100.000
Pilling	escale 1-5, max. 5 - EN ISO 12945-2	4-5
Colour fastness to light	escale 1-8, max. 8 - EN ISO 105 - B02	5-7
Colour fastness to rubbing	escale 1-5, max. 5 - EN ISO 105X12 (wet/dry)	4-5
Cleaning	Shrinkage: max 3,0%	
	Shrinkage: max 5,0%	
US ACT	AATCC 16 Light fastness	Pass
	ASTM D3511 Pilling	Pass
	ASTM D4157-07 Wyz abrasion (heavy duty)	Pass
	CA TB 117-2013	Pass
	AATCC 8 or 116 Wet/dry crocking	Pass
Flammability	IMO MSC 307(88) Annex 1 part 8 MED Certificate IMO DIN 4102 - B1 NFP 92-503/504/505 M1 BS EN 1021 1&2 Cigarette and Match BS EN 1021-1 Cigarette BS 5852 Part 1 0,1 Cigarette & match BS 5852 Crib 5 ÖNORM A3800-B1-B3825-Q1 UK FAR/JAR 25.853 (a) (i) (ii) BS 7176 Medium hazard AM 18 - NF D 60-013-(only for fabric) CA TB 117-2013 Class Uno UNI 9175 Class 1 I EMME DIN EN 13501-1 B-s1,d0 Will also pass other flammability standards. Flame retardant performance is dependent upon the foam used.	

Subject to changes and colour diferences

FIRE RETARDANT

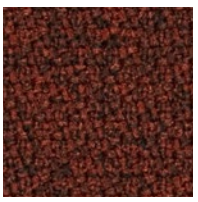
In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRIC "M"

GROUP 2

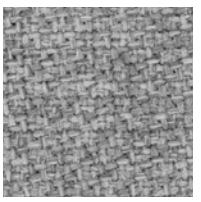
FIRE RETARDANT

100% TREVIRA CS / FLAME RETARDANT



63075 **M89**

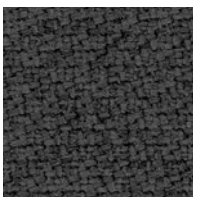
61103 **M20**



60004 **M14**

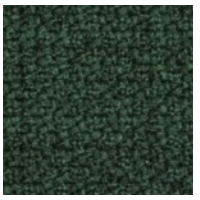
67004 **M63**

67072 **M17**



60021 **M22**

68119 **M10**



68161 **M49**

66019 **M19**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS GROUP "M"
STEP MELANGE - GABRIEL

Material	Trevira CS	100%
Weight	lin. metre aprox. grams	470
Width	cm	140
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale)	100.000
Pilling	escale 1-5, max. 5 - EN ISO 12945-2	4-5
Colour fastness to light	escale 1-8, max. 8 - EN ISO 105 - B02	5-7
Colour fastness to rubbing	escale 1-5, max. 5 - EN ISO 105X12 (wet/dry)	4-5
Cleaning	Shrinkage: max 3,0%	
	Shrinkage: max 5,0%	
US ACT	AATCC 16 Light fastness	Pass
	ASTM D3511 Pilling	Pass
	ASTM D4157-07 Wyz abrasion (heavy duty)	Pass
	CA TB 117-2013	Pass
	AATCC 8 or 116 Wet/dry crocking	Pass
Flammability	IMO MSC 307(88) Annex 1 part 8 MED Certificate IMO DIN 4102 - B1 NFP 92-503/504/505 M1 BS EN 1021 1&2 Cigarette and Match BS EN 1021-1 Cigarette BS 5852 Part 1 0,1 Cigarette & match BS 5852 Crib 5 ÖNORM A3800-B1-B3825-Q1 UK FAR/JAR 25.853 (a) (i) (ii) BS 7176 Medium hazard AM 18 - NF D 60-013-(only for fabric) CA TB 117-2013 Class Uno UNI 9175 Class 1 I EMME DIN EN 13501-1 B-s1,d0 Will also pass other flammability standards. Flame retardant performance is dependent upon the foam used.	

Subject to changes and colour diferences

FIRE RETARDANT

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRIC MESH "S"

100% POLYESTER®

GROUP 2

S30

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS FABRIC MESH "S"
STRING - GABRIEL

Material	Polyester	100%
Weight	lin. metre aprox. grams	330
Width	cm	150
Abrasion resistance	rubs - BS EN ISO 12947-2 (Martindale)	70.000
Pilling	BS EN ISO 12945-2	4-5
Colour fastness to light	scale 1-8, max. 8 - BS EN ISO 105 - B02	5-7
Colour fastness to rubbing	scale 1-5, max. 5 - EN ISO 105X12 (wet/dry)	4-5
US ACT	AATCC 16 Light fastness	Pass
	ASTM D3511 Pilling	Pass
	ASTM D4157-07 Wyz abrasion (heavy duty)	Pass
	CA TB 117-2013	Pass
	AATCC 8 or 116 Wet/dry crocking	Pass
Cleaning	Shrinkage: max 1,0%	
	Shrinkage: max 1,5%	
Flammability	BS 5852 Part 1 0,1 Cigarette & match BS EN 1021 1&2 Cigarette and Match CA TB 117-2013 Will also pass other flammability standards. Flame retardant performance is dependent upon the foam used. Contains no flame retardant chemicals.	

Subject to changes and colour diferences

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRIC MESH "H"

100% POLYESTER®

GROUP 3

MS 100 **H12**

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS - FABRIC MESH "H"
MESH 100 - EXIT FABRICS

Sectors	Contract | Office	
Aplications	Acoustic panels, Screens, Vertical surfaces, Office furniture	
Description	3D fabric of subtle and sober appearance, for pholstery that requires high breathability or good acoustic absorption. Stock available in black with possibility of producing colours with minimum orders.	
Features	Flame retardant | Indoor use | Acoustic absorption	
Composition	Polyester	100%
Width	gr/m2 ± 5% gr/ml ± 5%	320 512
Weight	cm (+/- 2%)	160
Long	meters	25
Thickness	mm (+/- 0,3)	2,8
Abrasion resistance	EN ISO 12947-2 Martindale cycles	 45.000
Flammability	UE: EN 1021 1/2	
Maintenance	Vacuum regularly. In case of stains, use a damp cloth with neutral soap suitable for cleaning of upholstery products. We would be delighted to attend to you if you have any doubt that may arise regarding this or other information.	
Colour matching	Variations can occur from one tint to another (3%)	
Subject to changes and colour diferences		

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

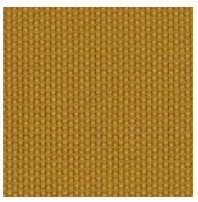
FABRICS

GROUP 3

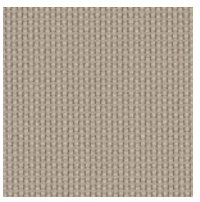
FABRIC MESH "Q"

100% TREVIRA CS

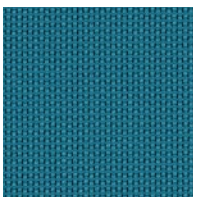
GROUP 3



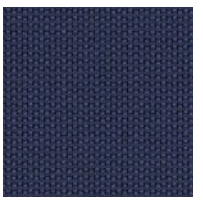
62057 Q41



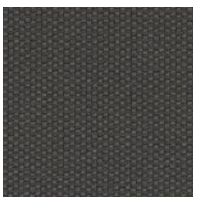
61149 Q40



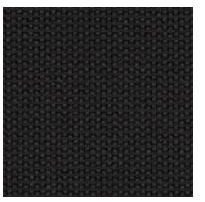
67007 Q46



65011 Q49



60021 Q43



60999 Q42

60004 Q44

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS - FABRIC MESH "Q" SPIN - GABRIEL

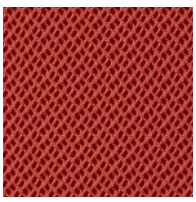
Material	Trevira CS	100%
Weight	lin. metre aprox. grams	430
Width	cm	140
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale) double rubs wyzenbeek (ASTM D4157-07) (heavy duty upholstery)	90.000 100.000
Piling	scale 1-5, max. 5 - EN ISO 12945-2	5
Colour fastness to light	scale 1-8, max. 8 - EN ISO 105 - B02	5-7
Colour fastness to rubbing	scale 1-5, max. 5 - EN ISO 105X12 (wet/dry)	4-5/4-5
Cleaning	Wash or dry cleaning 60° shrinkage máx. 2,5%.	
Flammability	BS EN 1021 1&2 Cigarette and Match BS 5852 0&1 BS 5852 Crib 5 CA TB 117-2013 DIN 4102 B1 NF P 92-503 M1 UNI 8456 UNI 9174 Will also pass other flammability standards. Flame retardant performance is dependent upon the foam used and fireproof treatment.	
Subject to changes and colour diferences		

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRIC MESH "R"

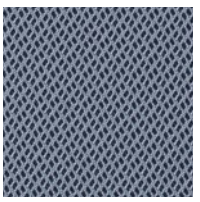
100% POLYESTER® / POLYESTER® FLAME RETARDANT

GROUP 3



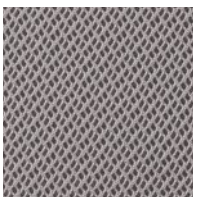
63067 R37

68122 R34



66151 R33

66138 R39



60165 R35

60999 R32

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS - FABRIC MESH "R"
RHYTHM - GABRIEL

Material	100% polyester/polyester flame retardant	100%
Weight	lin. metre aprox. grams	525
Width	cm	160
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale) double rubs wyzenbeek (ASTM D4157-07) (heavy duty upholstery)	70.000 100.000
Piling	scale 1-5, max. 5 - EN ISO 12945-2	5
Colour fastness to light	scale 1-8, max. 8 - EN ISO 105 - B02	5-7
Colour fastness to rubbing	scale 1-5, max. 5 - EN ISO 105X12 (wet/dry)	4-5/4-5
Cleaning	Wash or dry cleaning P (W) Rhythm is made of polyester which is a material suited for environments with special requirements for cleaning. 40°C shrinkage máx. 4%.	
US ACT	CA TB 117-2013 ASTM D4157-07 Wyz abrasion (heavy duty) 100k ASTM D3511 Pilling AATCC 8 o 116 Wet/dry crocking AATCC 16 Light fastness	PASS PASS PASS PASS PASS
Flammability	BS EN 1021 1&2 Cigarette and Match BS 5852 Part 1 0,1 Cigarette and Match BS 5852 Crib 5 BS7176 Medium hazard DIN 4102 B1 NF P 92-503 M1 Class Uno UNI 8456 UNI 9174 CA TB 117-2013 Will also pass other flammability standards. Contain no flame retardant chemical. Flame retardant performance is dependent upon the foam used and fireproof treatment.	
Certificates	Abrasion resistance - BS EN ISO 12947-2/14465 Breaking force - ASTM D5034 Breaking force Colour fastness to light - BS EN ISO 105 B02 Method 2 Colour fastness to perspiration - AATCC 15 Perspiration Colour fastness to rubbing - BS EN ISO 105-X12 Pilling - BS EN ISO 12945-2 Seam slippage - ASTM D4034 Yarn slippage at a sewn seam Wash stability - BS EN ISO 6330 4M 40 C PC Flat dry Environment - Oeko-Tex	
Subject to changes and colour diferences		

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRIC "A"

GROUP 3

95% VIRGIN WOOL, 5% POLYAMIDE

FIRE RETARDANT

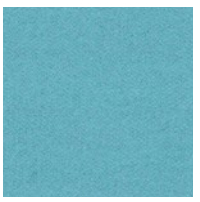
LDS74 A11

LDS84 A27

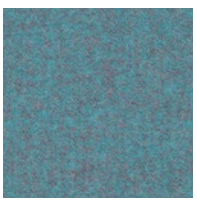
LDS45 A25

LDS33 A17

LDS19 A20



LDS55 A13



LDS56 A18

LDS59 A16

LDS34 A22

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS GROUP A
SYNERGY - CAMIRA

Material	Virgin Wool Polyamide	95% 5%
Weight	lin. metre aprox. grams	560
Width	cm	140
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale)	≥ 100.000
Colour fastness to light	scale 1-8, max. 8 - EN ISO 105 - B02	5
Colour fastness to rubbing	scale 1-5, max. 5 - EN ISO 105X12 (wet/dry)	4/4
Cleaning	Vacuum regularly. Professionally dry clean or wipe clean with a damp cloth.	
Flammability	BS EN 1021 1&2 Cigarette and Match BS 7176 Low Hazard NF D 60-013 ÖNORM B 3825 & A 3800-1 (58 kg/m3 CMHR Foam) UNI 9175 Classe 1 IM EN 13501 Adhered Class D, s1, d0 EN 13501 Un-adhered Class E, s2, d0 **Optional: Please specify when ordering:** BS 5852 Ignition Source 5 when FR treated BS 7176 Medium Hazard when FR treated EN 13501 Adhered Class B, s1, d0 when FR treated EN 13501 Un-adhered Class D, s2, d0 when FR treated BS 5867-2: Type B Curtains & Drapes when FR treated Note: Flammability performance is dependent on components used. Will also pass other flammability standards.	
Certificates	Environment - Certified to the EU Ecolabe	
Subject to changes and colour diferences		

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

FABRICS

GROUP 5

FABRIC "P"

100% FIRST QUALITY SELECTED LEATHER (COW GRAIN LEATHER)

GROUP 5

P18

P11

P10

It is strongly recommended to read the technical specifications before choosing the upholstery.

TECHNICAL SPECIFICATIONS FABRIC "P"
SAVANA - MARIANO FARRUGIA

Material	First quality selected leather (Cow grain leather)	100%
Finish	First quality leather semi-aniline (Chrome tanning)	100%
Thickness	mm	0,8-1,1
Tear resistance	DIN 53329	> 20 N
Bending resistance	DIN 53351	Min. 100.000
Grip Finish	IUF 470	min. 1,5N/10mm
pH of the aqueous excerpt	DIN 53312	> 3,5 N
Colour fastness to light	DIN 50004	5
Colour fastness to rubbing	DIN 53339 (wet/dry)	250 ºC (Wet) / 1000 ºC (Dry)
Cleaning	Wipe clean with neutral deterge.	
Flammability	BS 5852:90	

Subject to changes and colour diferences

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

OTHER
FINISHES

LEATHER FACE

100% RECYCLED LEATHER FIBRES

02

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04

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MENTIONED FINISHES WILL BE REMOVE FROM OUR PRICE LIST ONCE THEY BE OUT OF STOCK.

TECHNICAL SPECIFICATIONS LEATHER FIBRES

Material	Recycled Leather Fibres	100%
Finish	Poliurethane Water Solution	100%
Weight lin/metre	grams	140
Width	cm	140-145
Thickness	mm	1,1 - 1,8
Abrasion resistance	rubs - EN ISO 12947-2 (Martindale)	45.000
Colour fastness to rubbing	ISO 105X12 (wet/dry)	> 500 cycles (Wet) > 2.000 cycles (Dry)
Tear resistance	ISO-33771	>10n
Finish Adhesion	ISO-11644	>5n
Cleaning	Wipe clean with neutral deterge.	
Flammability	BS EN 1021 - 1:2006 (Cigarette) - BS EN 1021 - 2:2006 (match)	

Subject to changes and colour diferences

In case a white or light colour fabric has been chosen, some clothing items (especially, but not only, dark fabrics and jeans) could transfer their colour to the coated fabrics. This can also be the case in the opposite case, where upholstery can transfer its colour to light-coloured garments. This happens more with dampness and highter temperatures and is irreversible.

BEECH LACQUERED PLYWOOD

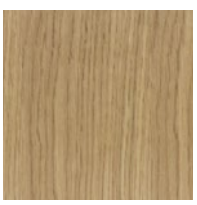
18/28 NATURAL LAQUERED BEECH

14 CHESTNUT

19 WENGUE LAQUE-RED OAK

00 WHITE

07 RED



26 NATURAL OAK

29 WENGUE LAQUERED OAK

LACQUERED PLYWOOD TECHNICAL SPECIFICATIONS

Plywood desktop of 10 mm thickness manufactured with natural beech or oak wood and synthetic resins using high pressure and heat. The alternating arrangement of the fibres formed at right angles (perpendicular and transverse), gives the product great dimensional stability and durability, great resistance and lightness, 100% recyclable.

POLIURETHANE

01 GREY

08 BLACK

06 BLUE

15 PISTACHIO

07 RED

TECHNICAL SPECIFICATIONS POLIURETHANE

PU (Poliurethane integral) - (TPU)

Versatile material with compact surface and soft inner. It is comfortable and solid, pleasant and resistance.

Elastomer to absorb impacts or constant movements.

Long lasting without any maintenance.

Great resistance to over weight as well as capacity to absorb impacts.

Polyurethane is resistant to grease, oil, cracks and tears. All standard pieces fulfill DIN 9835 quality requirements.

THERMOPLASTIC

- AVAILABLE FOR: **WHASS**, **WING** AND **URBAN**
- AVAILABLE FOR: **NOOM** AND **SPACIO**
- AVAILABLE FOR: **BEE**

00 WHITE

2331 U

21 GREY

BLACK 6 U

10 BLACK

555 U

18 GREEN

583 U

25 PISTACHIO

7555 U

24 MUSTARD

2161 U

19 DARK BLUE

5425 U

13 LIGHT BLUE

P20 MINK

7619 U

16 BRICK RED

7607 U

17 CORAL RED

THERMOPLASTIC TECHNICAL SPECIFICATIONS

COPOLYMÈRE POLYPROPYLÈNE (PP) + FIBER GLASS:

Additives with antistatic, antioxidant and UV stabilisers.

A high impact elastomer is used in elements which support a moderate effort (backs, seats and armrests)

Excellent behaviour under tension and stretching.

Mechanical resistance. High flexibility. Excellent weather resistance. Reduced crystallisation; unaffected by environmental stress cracking. Good chemical and water resistance properties. It does not affect the environment by its absence of chemicals and adhesives.

ABS:

Thermoplastic derivative from a glassy polymer (styrene-acrylonitrile) and an elastic compound, butadiene.

ABS is a plastic stronger than polystyrene and it stands out for resistance to tension and impact. Good mechanical, thermal and chemical resistance. Resistance to fatigue.

Strength and robustness. Low temperature ductility. Melting resistance. Brightness. Strength and robustness. Non-toxic and colourless. It can be extruded, molded by injection, blowing and pressing.

POLYAMIDE (PA) + FIBER GLASS:

Additives with antistatic, antioxidant and UV stabilisers. Level 6 (1 to 10).

Composition which supports impacts superior to polypropylene (PP), with a greater robustness and superficial hardness. It is used in components which require high resistance to impact, especially in bases and mechanisms.

ECO THERMOPLASTIC

P50 WHITE

P71 GREY

P60 BLACK

P68 GREEN

P74 MUSTARD

P76 SAND BEIGE

ECO THERMOPLASTIC TECHNICAL SPECIFICATIONS

POLYPROPYLENE (PP) + FIBER GLASS:

100% RECYCLED product made from recovered materials: manufactured with 100% recycled thermoplastic material (post-consumer mainly from fruit crates) and 100% recycled fiberglass (from industrial scrap) (both recyclable).

The different particles present in the plastic granules resin have different melting points as a result of the characteristics of the recovered raw material, and have an irregular surface finish that recreates the naturalness of a recovered product, providing uniqueness and value to the design.

The different particles that occur in the chippings have different melting points as a result of factors inherent to the recovered raw material, and have an irregular surface finish that recreates the naturalness of a recovered product, adding uniqueness and value to the design.

Additives with antistatic, antioxidant and UV stabilisers.

A high impact elastomer is used in elements which support a moderate effort (backs, seats and armrests)

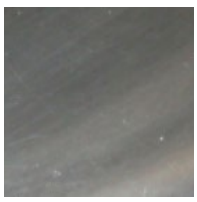
Excellent behaviour under tension and stretching.

Mechanical resistance. High flexibility. Excellent weather resistance. Reduced crystallisation; unaffected by environmental stress cracking. Good chemical and water resistance properties. It does not affect the environment by its absence of chemicals and adhesives.

METAL

00/70 WHITE

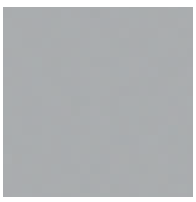
05 DARK BLUE


07 SILVER POLISHED

01 GRIS

15 PISTACHIO

09 CHROME


02/72 SILVER

14 ORANGE

10/78 BLACK

77 BURGUNDY

TECHNICAL SPECIFICATIONS METAL

All metal components, aluminum or steel, have epoxy-polyester finish. No toxic or solvent elements. Chromed finished is done over treated steel.

PAINTING FEATURES

1 – Electrostatic coat, epoxy bonding 2nd generation. Polymerized 200ºC with nano-ceramics and non-grease treatments to improve better covering and provide then better resistance and lasting.
2 – Coating 80-90 micron thickness (it could be different as per the project requirements).
This covering guarantees the finish and maintenance of metal structures.
3 – Painting process:
Painting plant has minimum environmental impact against the traditional industry processes.
Treatment is done by polarized coating and compacted with temperature. We get homogeneous and regular application with 98% of painting and the remaining 2% is used to produce other paints. Paints used are COVs free (Volatile Organic Components) which are very dangerous for the environment. All water used in the process is re-used, so we get zero dump.
4 – Antibacterial finish (Optional)

WOOD

Care and protection of wood.

Scratches: Use a protector that protects surfaces against marks, scratches and
Lift objects up whenever possible. The majority of scratches are made by dragging objects across the wood.

Plastic and Rubber: Some plastics contain components that contain soft material.
When you put some wooden objects on this which contain some components which may damage the finish, resulting in shades or prints.
To avoid this, use flet or leather mats on the table. Do not use mats covered in plastic.
Avoid leaving plastic folders or files on the table preventing the wood "breathing".

Light effects: As with leather, wood changes over time.
Light - affects wood which causes a change in colour.
Each species of wood changes. Some adopt a warm tone while others become darker or lighter.
Move objects and accessories frequently so as to avoid shadows on the wooden surface.

Reflection: Trees contain a "vascular" system of fibres which carry the sap to every corner.
These fibres cause the wood to reflect light in different ways, depending on how it is made up.
For example, a table and extension, having different fibres will look like different shades.
But if you walk around, you will notice how the light changes on work surfaces and the effects of brightness and velvet on the wood.

Avoid temperatures and extreme humidity.

Clean with any Commercial products suitable for cleaning and maintenance for treated wood surfaces, wax basis, aliphatic hydrocarbon or seed oil surfactant.
Always wipe the surface in the direction of the grain.
Remove stains. Do not use products with silicon.

FABRICS

Each material has a specific feature, albeit technical or aesthetic.

If the stain has dried, try to remove the excess by hand or by using a brush.
Place a cleaner on the stain and continue with a PH neutral cleaner with a neutral cleaning agent such as soapy water. It is important to rinse with clean water.
Types of stains:

Oil: Treat with a solvent or treat with a colour fixing agent.
Alcohol: Fresh stains: Treat with a household vinegar and rinse immediately. Dried Stains: Treat with a whitening oxidizing agent.
Pen: Treat with a colour fixing agent.
Coffee: Fresh stains: Treat with household vinegar, and rinse immediately. Dried Stains: Treat with a whitening oxidizing agent.
Wax for furniture: Treat with a colour fixing agent.
Chewing gum: Treat with a solvent.
Chocolate: Fresh stains: Treat with soap or liquid soap for hands, rinse immediately or treat with solvent.
Cream: Fresh stains: Treat with soap or liquid soap for hands, rinse immediately.
Grease: Treat with a colour fixing agent.
Lip stick: Treat with a colour fixing agent or treat with a colour fixing agent.
Milk: Fresh stains: Treat with soap or liquid soap for hands, rinse immediately.
Butter: Treat with a colour fixing agent. Fresh stains: Treat with soap or liquid soap for hands, rinse immediately.
Urine: Fresh stains: Treat with soap or liquid soap for hands, rinse immediately.
Blood: Fresh stains: Treat with soap or liquid soap for hands, rinse immediately.
Tea: Fresh stains: Treat with household vinegar, and rinse immediately. Dried Stains: Treat with a whitening oxidizing agent.
Ink: Treat with a colour fixing agent.
Wine: Fresh stains: Treat with household vinegar, and rinse immediately. Dried Stains: Treat with a whitening oxidizing agent.
Fruit juice: Treat the stain with a whitening oxidizing agent or treat with a colour fixing agent.

LEATHER

Leather is a natural material, probably the toughest upholstery and requires specific care.

Wipe gently. Use a cream once or twice a year. Do not use shoe polish.
Types of stains.

Water: Soak and leave to dry before brushing.
Pen: Alcohol 90%
Coffee: Mix water with a little ammonia.
Grease: Apply a grease solvent spray. Leave to dry. Brush.
Wax stains: Apply a grease solvent spray. Leave to dry. Brush.
Other stains: Consult with a specialist.
Pen: Warm skimmed milk and lemon juice.
Water based felt-tips: Water and if neccessary a little bit of lemon.
Permanent Ink: Cannot be removed

It is recommended that you clean the upholstery every two weeks, to prevent an accumulation of dirt (for example skin particles that can be inserted into the fabric.)
Visitors chairs need less cleaning than work chairs which are used daily.
It is essential to use a soft fibre brush on a vacuum to prevent damage to the fabric surface.
The dried in dirt on the surface will disappear after a thorough cleaning.

As for wet marks and stains that will not disappear after cleaning with a vacuum, we suggest the following solutions:

Mix water with a PH neutral cleaner. The temperature of the water must be between 25 and 35 degrees. A running liquid may also be used but don´t overdose.
Clean the stains several times, using a soft fabric until they are no longer perceptible. It is essential not to use too much water and avoid soaking the foam, which could damage the chair.
After 3 washes, rinse with water.
Press with a dry fabric against the other fabric to remove the moisture as much as possible.
If the result is not completely satisfactory, repeat the process.