Trespa TopLab^{PLUS}. **Design à la carte.**

laboratory

TRESPA®

All the best qualities in one panel

Leading laboratory designers choose Trespa TopLab^{PLUS} both for its looks and for its quality, safety and hygiene.

Its surface looks good and stays looking good while offering:
- *the highest standards of hygiene*
- *ease of cleaning and disinfection*
- *strength and durability*
- *environmentally sustainable characteristics*

A well appointed and goodlooking laboratory provides an efficient, effective and pleasant environment. TopLab^{PLUS} brings additional benefits both in aesthetics and functionality.

Trespa TopLab^{PLUS}

creating the right environment

Choosing laboratory furniture can be a complex task. Prime considerations are user comfort, aesthetics and hygiene. The average life-cycle of a laboratory is 15 years, so furniture should be durable and adaptable. Making the right decision can have long-term consequences for the overall performance of the laboratory: improved efficiency and enduring effectiveness.

Worktops in laboratories are especially vulnerable, as their material may influence the outcome of experiments and other work in progress. The material used for worktops needs to be durable, easy to maintain, resistant to extreme conditions and in line with international standards and legislation.

TopLab^{PLUS} the right choice

Trespa TopLab^{PLUS} is a self-supporting flat panel with a cellulose fiber reinforced phenolic resin core. Each panel has an integrated, decorative surface based on pigmented, electron beam cured resins which are resistant to the most aggressive chemicals, and easy to clean and maintain. These panels meet all the requirements of most laboratories while at the same time bringing additional benefits in terms of aesthetics. With TopLab^{PLUS}, keeping your laboratory in showroom condition is easy.

Key benefits include
- Durability
- Chemical resistance
- Impact resistance
- Scratch resistance
- Wear resistance
- Water resistance
- Easy to clean
- Easy to disinfect
- Environmentally friendly

Chemical and analytical areas

Durable and decorative

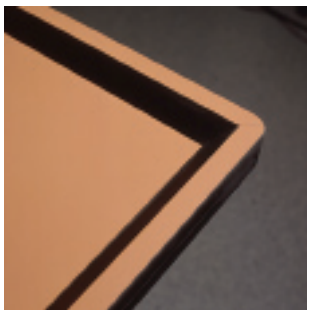
for thermal and chemical resistance

Trespa TopLab^{PLUS} delivers excellent performance, even in the most demanding of environments. Aggressive chemicals will not mark a TopLab^{PLUS} surface – if cleaned within 24 hours. And thanks to its heat resistant properties, work surfaces retain their good looks.

TopLab^{PLUS} allows a new degree of design freedom. Processed in a similar way to hardwood, Trespa TopLab^{PLUS} can be machined and adapted to the changing technical needs of the laboratory: sinks (stainless steel, epoxy, polypropylene), drip cup, drainage holes and grooves can easily be incorporated. Edges and joints are water-proof and chemically resistant without need for further finishing.

Once installed, TopLab^{PLUS} can simply be adapted to subsequent changes in the laboratory. It can be re-cut and retro-fit with new taps, sinks or other equipment, while retaining all of its properties.

Trespa TopLab^{PLUS}: the finishing touch



Physical and educational areas

Tough and technical

Laboratories used frequently by different people or groups need to be strong and hard-wearing. They need to look their best at all times, as visible signs of wear will lead to a more casual approach by subsequent users.

TopLab^{PLUS} provides a tough and long-lasting surface that retains its good looks. Impact and scratch resistant TopLab^{PLUS} worktops are versatile as they easily double up as administrative working surfaces.

mechanical strength in a multi-user environment

TopLab^{PLUS} is ideal for a multi-functional environment. Its high impact resistance makes it especially suitable for use in trolley tops. As part of a mobile and flexible environment, TopLab^{PLUS} delivers added strength to any laboratory or lecture room.

Trespa TopLab^{PLUS}: the winner

Biological and clinical areas

Sterile and safe

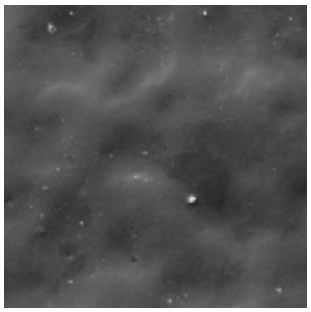
for chemical resistance and hygiene

In an environment where hygiene is key, TopLab^{PLUS} provides the best choice: its surface is absolutely impervious to all possible materials used in biochemical and medical laboratories: radio-isotopes, human tissue and blood samples or bacteria.

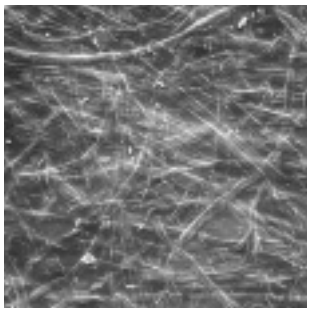
Biological or clinical test results are dependent on non-contamination. Trespa TopLab^{PLUS} provides a surface impermeable to bacteria, molds or micro-organisms. Resistant to dyes and organic solvents, TopLab^{PLUS} is water-resistant and remains easy to clean or disinfect.

Trespa TopLab^{PLUS} is available in large panel sizes, so laboratories can be designed with a limited number of joints. Panels can be machined with ease - on-site or off-site - providing the perfect fit for every laboratory.

Trespa TopLab^{PLUS}: the first choice



TopLab^{PLUS}



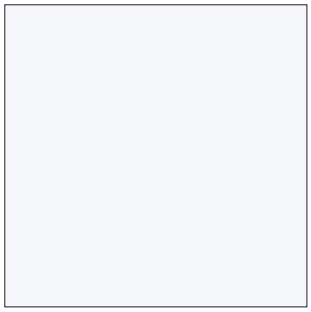
Melamine

The photographs have been taken with the aid of a Scanning Electron Microscope. They clearly demonstrate the difference between a surface produced with Trespa EBC technology (Trespa TopLab^{PLUS}) and a surface of traditional melamine.

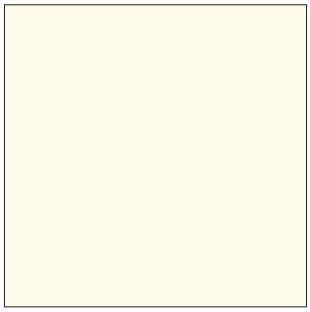
Color Delivery Program

Design your own colored worktop! See reverse

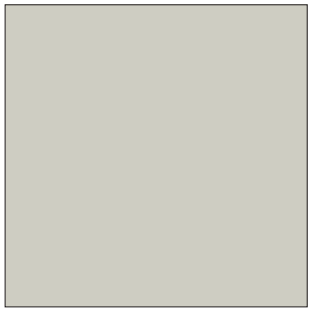
Unidecor



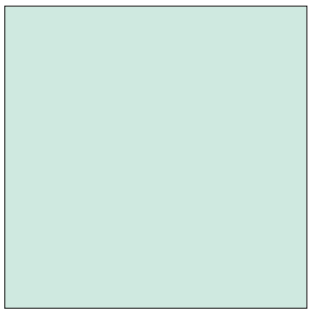
Mystic White
T 18.0.1



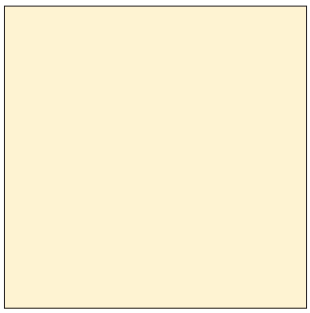
White
T 03.0.0



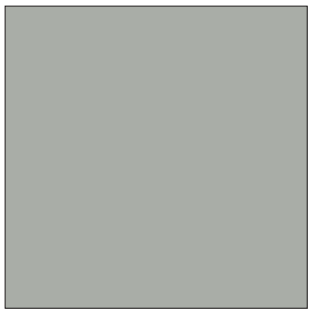
Pastel Gray
T 03.1.0



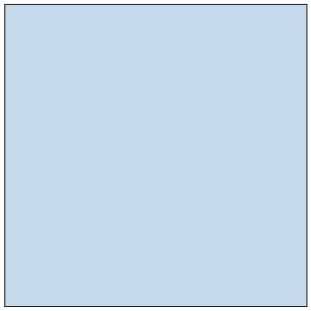
Polar Green
T 30.0.1



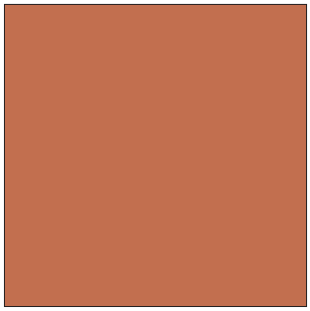
Limestone Yellow
T 05.0.1



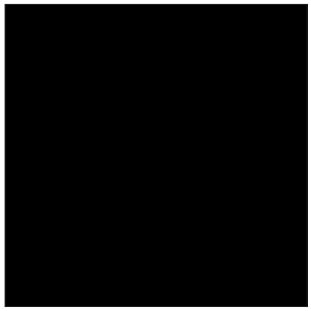
Silver Gray
T 03.4.0



Glacier Blue
T 21.1 .1



Canyon Red
T 09.3.4

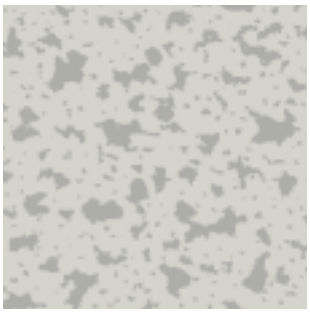


Black
T 90.0.0

Speckles

Mystic White/Blue
D 02.0.8

Limestone Yellow/Saffron
D 02.0.9



Pastel Gray/Silver
D 02.1.0

The colors in this document are printed, and therefore, may vary slightly from the original Trespa panel colors with respect to gloss, color shades and surface texture. Original samples are available on request.

TopLab PLUS

Color Delivery Program

Design your own colored worktop!

The TopLab^{PLUS} color range gives the opportunity to design an attractive and pleasant working environment. However, we would like to offer you the opportunity to specify a color of your own choice. With adequate lead-time, customized project/client colors are available where panel requirement exceeds 12000 ft^2 per color. (Please contact your local Trespa sales office)

Standard unidecor delivery program:

Panel sizes:	*120" x 60" (3050 x 1530 mm)*
	100" x 73" (2550 x 1860 mm)
Type:	*colored on one side, black on the other side*
Surface structure:	*Crystal Matte on decor side:*
	Crystal matte is a very fine surface structure with a matte sheen, recommended for horizontal applications.
	Satin on back side
Quality:	*Standard /black core*
Panel thicknesses:	*1/2" (13 mm)*
	5/8" (16 mm)
	3/4" (20 mm)
	1" (25 mm)

TopLab PLUS double sided!

TopLab^{PLUS} is also available with an integrated decorative surface on both sides, in panel size 120" x 60" (3050x1530mm). This goes for both the unidecors as well as the speckles. This service product widens the design possibilities and offers you chemical and mechanical strength on those areas where it is needed on both sides. Shelves, compartments ... with TopLab^{PLUS} a workstation can be tailored to your specific needs and still meet all the requirements of a laboratory.

Standard speckle delivery program:

Panel sizes:	*120" x 60" (3050 x 1530 mm)*
	100" x 73" (2550 x 1860 mm)
Type:	*colored on one side, black on the other side or colored on both sides.*
Surface structure:	*Crystal Matte on decor side:*
	Crystal Matte is a very fine surface structure with a matte sheen, recommended for horizontal applications.
	Satin on back side
Quality:	*Standard /black core*
Panel thicknesses:	*1/2" (13 mm)*
	5/8" (16 mm)
	3/4" (20 mm)
	1" (25 mm)

Chemical Datasheet

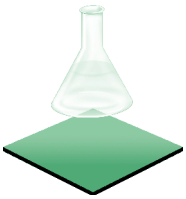
Try TopLab[PLUS] in the Chemical Resistance Test!

Test procedure

The test was conducted by applying 5 drops of each reagent on the surface, covered with a watchglass (except those marked**). Chemicals marked ** were tested with a saturated cotton ball covered by a bottle. The chemicals were tested at room temperature for a period of 24 hours, rinsed off with water and evaluated.

Test results

No effect
No detectable stain, loss of gloss or change in work surface material



Excellent
Slight stain or loss of gloss, but no change to the function, smoothness or life of the work surface material

Good
A clearly discernible stain or loss of gloss, but no change to the function, smoothness or life of the work surface material

Fair
Unacceptable staining or discernible deterioration or etching of the work surface material

Failure
Severe stain or moderate deterioration, pitting cratering or etching of work surface material

Although the test was conducted professionally by an independent testing lab, it is recommended that users conduct their own tests: convince yourself that TopLab[PLUS] is the only true multifunctional work surface!

		No effect	Excellent	Good	Fair	Failure
Acids						
Hydrochloric acid	10%	X				
Hydrochloric acid	37%	X				
Sulphuric acid	33%	X				
Sulphuric acid	98%		X			
Nitric acid	30%	X				
Nitric acid	65%		X			
Phosphoric acid	85%	X				
Acetic acid	99%	X				
Hydrofluoric acid	48%					X
Chromic acid	60%	X				
Bases						
Ammonium Hydroxide	28%	X				
Sodiumhydroxide	20%			X		
Salt						
Silver nitrate	1%	X				
Potassium permanganate	10%	X				
Ferric(III)chloride	10%	X				
Copper sulphate	10%	X				
Sodium hypochlorite	13%	X				
Sodium chloride	10%	X				
Organic Chemicals						
Formaldehyde	37%	X				
Furfural			X			
Solvents**						
Acetone		X				
Ethylalcohol		X				
Ethylene glycol		X				
Methylethylketone		X				
Dichloromethane		X				
Ethylacetate		X				
Acetic anhydride		X				
n-Butyl acetate		X				
n-Hexane		X				
Methylalcohol		X				
Methylisobutylketone		X				
Tetrahydrofurane		X				
Toluene		X				
Trichloroethylene		X				
Xylene		X				
Biological Stains						
Acridine orange	1%	X				
Basic fuchsin	1%	X				
Carbol fuchsin	1%	X				
Malachite green oxalate	1%	X				
Methylene blue	1%	X				
Methyl violet 2B	1%	X				
Wright stain	1%	X				
Gentian Violet (dye)	1%	X				
Most conventional cleaning agents		X				

All information is based on our current state of knowledge. It is intended as information concerning our products and their application possibilities, and is therefore not intended as any form of guarantee with regard to any specific product characteristic. Test results differ per color.

A detailed list of SEFA 49 test results is available upon request.

Design Details

Specify worktops to meet your particular working environ

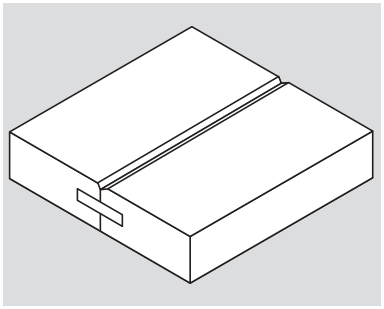
Durability, maintainability, reliability and aesthetics are optimized when the worktop is machined correctly. TopLab^{PLUS} can be tailored to the technical discipline of the laboratory. Requirements such as safety, ergonomics, cleanability, and environmental demands, can all be met through the adaptation of the worktop to your specific needs. Some examples of how TopLab^{PLUS} can be adapted to particular work needs and conditions are illustrated below.

Minimum standards of design

Chemical and analytical areas

Joints

It is recommended that the joint between two benches should be level, strong and easy to clean (dependent on specification). As a general rule joints should be located away from sink areas and over or near supports. It is generally accepted that the distance from a joint to the end of bench should be greater than the overall width of the bench.

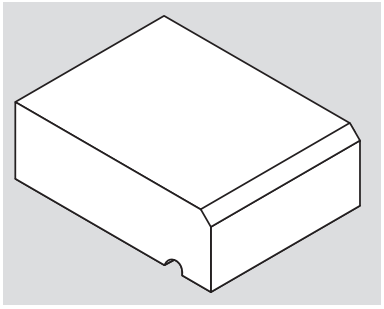


Tight joint with spline and chamfer

- Chamfer will reduce problems caused by sliding heavy objects

Edges

Edges should be safe, free from saw marks and jagged edges. For better aesthetics it is advised to polish edges.

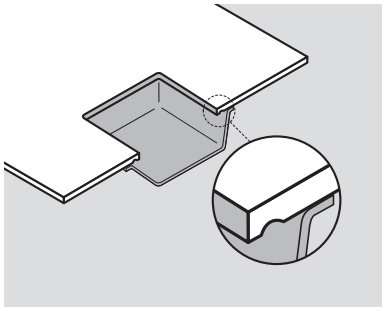


Chamfer or radius edge and drip groove

- Size of chamfer is recommended to be at least 1/16" (2 mm)
- Drip groove minimizes the risk of hazardous chemicals finding their way into under bench drawers and storage areas

Sink cutouts

Sink holes should be without jagged edges. An adequate gap should be provided between sink lid and sink hole. Drop-in, undermount and overlay styles can be accommodated.



Groove for undermount sink

- Drip groove helps to prevent liquid spills creeping through joints and into under- bench areas
- Spills can easily be wiped into the sink

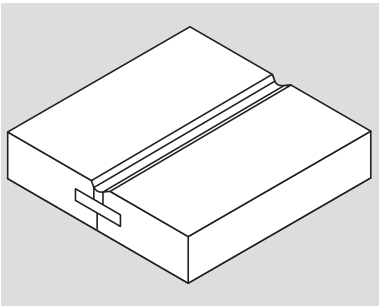
TopLab PLUS

ment!

Specification text

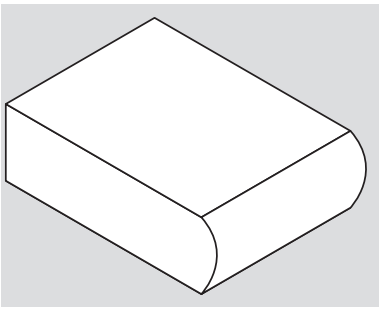
Trespa TopLab[PLUS] for Chemical, Biological and Physical laboratories. A solid laboratory bench, where the decorative surface provides 24-hour chemical resistance against concentrated acids and dyes. The panel core to be based on cellulose fibers reinforced with resins to give a black edge.

Biological and clinical areas



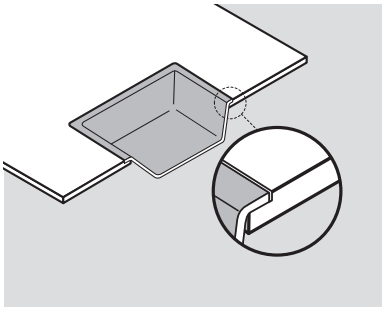
Tight joint with spline and sealant

- Specified where hygiene and cleanliness are important
- Sealant can be cleaned, removed and replaced if necessary and reduces the likelihood of penetration by liquids



Crescent edge

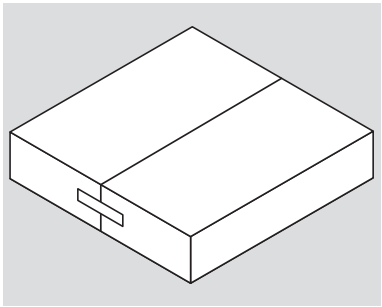
- Decorative edge for dry areas and write-up benches
- Easy to decontaminate



Sink cutout routed for drop in sink

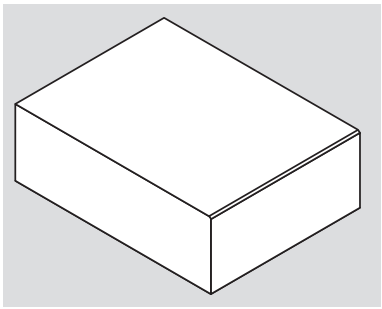
- Easy to clean where contamination is a concern
- Ensures the integrity of experiments
- Drop in-sinks are advised where contaminated liquids are used

Physical and educational areas



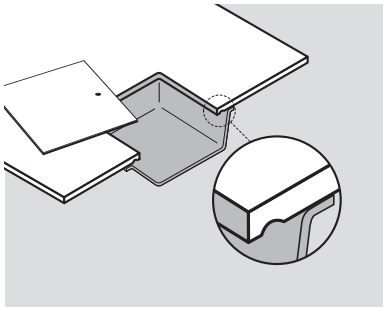
Tight joint with spline

- Spline assists the joining of two separate panels
- Establishes a strong joint



Standard edge (chamfer) or radius

- Size of chamfer is recommended to be at least 1/16" (2 mm)



Sink cutout with lid, edge with drip groove for undermount sink

- Sink lid provides extra working space
- Spills can easily be wiped in the sink
- Routered for drop in lid

Accessories

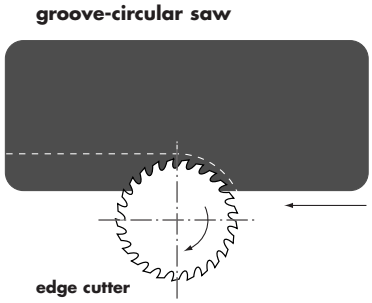
The machinability of TopLab[PLUS] allows the easy incorporation of sinks, cup sinks and marine edges. Please ask your local Trespa sales office for details.

Workability and Cleaning

Correct installation and simple maintenance extends the

Routing

Do not remove the protective film on the Trespa panels until they are assembled. If the film burns or melts during routing, remove only the film on the edge areas.



Manually operated router cutter

Diameter	*Number of revolutions*	*Router Speed*	*Feed*
3/4" – 1" (20-25mm)	*18,000-24,000*	*65-100 ft/sec (20-30m/sec)*	

Manually operated spindle moulder

Diameter	*Number of revolutions*	*Router Speed*	*Feed*
5" (125mm)	*6,000-9,000*	*130-200 ft/sec (40-60m/sec)*	*15-50 ft/min (5-15m/min)*

Routing shapes

- Straight and slanted bits for cutting edges and beveling.
- Hollow or round bits for rounded edges.
- Diamond groove circular saw blades for grooves.

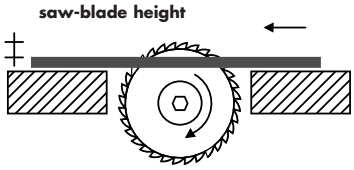
Materials

Cutters made of carbide or diamond.

Sawing

Stationary circular saw

Section	*Teeth*	*Number of revolutions*	*Blade thickness*	*Height setting*
12" (300 mm)	*72*	*6,000*	*1/8" (3.4 mm)*	*1 3/16" (30 mm)*
14" (350 mm)	*84*	*5,000*	*3/16" (4 mm)*	*1 3/8" (35 mm)*
16" (400 mm)	*96*	*4,000*	*3/16" (4.8 mm)*	*1 9/16" (40 mm)*



Feed: 23-72 ft/min

Tooth: Alternate or trapezoidal flat tooth with carbide or diamond tip.

Jig saw: Carbide-tipped, interior corners of cut-outs should be drilled first with 1/4″ (6 mm) hole diameter.

Entering tooth: At the decorative side of the panel.

Cut edges: The best results are obtained with stationary machines. Any sharp edges can be removed with sandpaper.

Rake angle: A rake angle of 45° gives the best performance

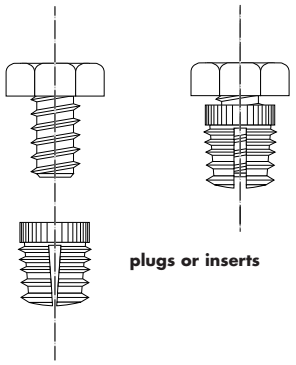
TopLab PLUS

functional life and quality appearance of TopLab.PLUS

Attaching

Attaching of TopLab^{PLUS} can be done with screws and inserts.
This way of fixing is suitable where high pull-out strengths are desired.

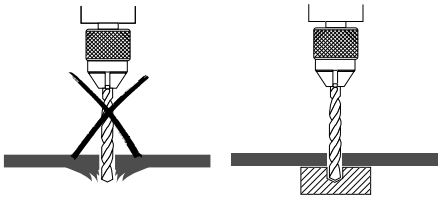
- pre-drill diameter = insert diameter
- minimum panel thickness: 3/8" (10 mm)
- minimum remaining panel thickness: 1/16" (1.5 mm)
- the screws used are not thread cutting, usually M6
- drill bits with depth adjusters are available to prevent drilling too deep



Drilling

HSS drill, top angle 60-80°. Panels should be drilled with support sheets.

Section	*Number of revolutions*	*Start*
3/16" (5mm)	*3,000*	*2 3/8 - 4 3/4" inch/min (60-120m/min.)*
5/16" (8mm)	*2,000*	*1 9/16 - 3 1/8" inch/min (40-80m/min.)*
3/8" (10mm)	*1,500*	*1 3/16 - 2 3/8" inch/min (30-60m/min.)*



Peck drill max. 3/8" deep and lift bit to clear chip. Repeat as needed.
Large holes, e.g. for suspension and locking equipment, are to be drilled with combination drills without a centering point.

Cleaning

The non-porous surface of Trespa TopLab^{PLUS} is easy to clean.

- General
  -For general cleaning of standard worktops, household cleaners, water or soap for example, are highly recommended.

In addition Trespa TopLab^{PLUS} in its optimal panel size provides a long, seamless laboratory worktop that is easy to decontaminate.

In any case, the use of an abrasive or polishing materials should not be used to clean Trespa surface.

Please request a Trespa cleaning leaflet for further instruction.

Disinfection
When a more thorough cleaning is required for disinfecting (micro) biologic or clinical laboratory benches, operating theaters or surgeries, stronger cleaners or disinfectants based on alcohols, aldehydes, phenols, quaternary ammonium compounds, ethanols (70%), formaldehyde (1%, 5%), p-chloro-m-cresol (0.3%), tosyl chloride-Na (1%) and alkyldimethyl-benzyl-ammonium chloride-Na (0.1%) adapted to the usage are advisable to use.
No damage of the panel or alteration of the surface or the color will occur.

Technical Datasheet

TopLab PLUS

Material properties Trespa TopLab.PLUS

Properties	Value	Unit	Standard
Physical Properties			
Specific gravity	*87.5 (± 1400)*	*lb/ft³ (Kg/m³)*	*ASTM-D 792-91*
Weight Thickness 1/2" (13 mm)	*3.8 (18.5)*	*lb/ft² (Kg/m²)*	
Thickness 5/8" (16 mm)	*4.6 (22.5)*	*lb/ft² (Kg/m²)*	
Thickness 3/4" (20 mm)	*5.7 (28.0)*	*lb/ft² (Kg/m²)*	
Thickness 1" (25 mm)	*7.2 (35.0)*	*lb/ft² (Kg/m²)*	
Panel tolerance			
Length	*0.0/+0.2" (-0.0/+5)*	*(mm)*	
Width	*0.0/+0.2" (-0.0/+5)*	*(mm)*	
Thickness	*± 0.024" for 1/2", 5/8"(± 0.6 for 13, 16)*	*(mm)*	
	± 0.028" for 3/4"(± 0.7 for 20)	*(mm)*	
	± 0.032" for 1" (± 0.8 for 25)	*(mm)*	
Optical properties			
Changes when subjected to dry heat (maximum temperature of 355°F)			*EN 438-2 (8)*
gloss	*no changes*		
color	*no changes*		
cracking	*no changes*		
Mechanical properties			
Modulus of elasticity	*≥ 1.200.000 (≥ 8.000)*	*psi (N/mm²)*	*DIN 53457*
Tensile strength	*≥ 13.000 (≥ 90)*	*psi (N/mm²)*	*DIN 53455*
Flexural strength	*≥ 14.500 (≥100)*	*psi (N/mm²)*	*DIN 53452*
Impact resistance	*indexnr. 4 [≥ 11] (≥50)*	*lbf (N)*	*EN 438-2:11*
*Scratch resistance **	*indexnr. 4 [≥ 1] (≥5)*	*lbf (N)*	*EN 438-2:14*
*Wear resistance **	*indexnr. 3 [≥ 600 rev.] (≥600)*	*(revolutions)*	*EN 438-2:6*
Thermal properties			
Application temperature			
Constant	*- 40 / + 285 (- 40 / + 140)*	*°F (°C)*	
Peak, max. 20 min.	*+ 355 (+ 180)*	*°F (°C)*	

** depending on color and print*

TRESPA®

All the best qualities in one panel

Lasting hygiene and ease of cleaning; see, compare and judge for yourself!

	Athlon (melamine)	TopLab PLUS (EBC)
Safe to touch – skin and foodstuffs	+++	+++
Effective and simple cleaning:		
Micro-organisms	++	+++
Organic greases, calcium, lime soap	+/-	+++
Graffiti	++	+++
Other stains	+	+++
Resistant to detergents and disinfectants:		
Cleaning according to guidelines	+	+++
Occasional deviation from guidelines	+/-	+++
Surface does not provide a breeding ground for Micro-organisms	++	+++
Resistant to:		
Damp/corrosion/rot	++	+++
Solvents	++	+++
Bleaches	+/-	+++
Steam	+	+++
UV exposure in interior use	++	+++
Biological stains	+	+++
Acids and bases, concentrated	+/-	+++
Effectiveness of disinfectant and decontamination	++	+++

- Insufficient +/- reasonable + acceptable ++ good +++ excellent

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Quality.

Trespa International BV

Trespa International BV specializes in high quality panel material for façade cladding and interior use. Trespa has both the expertise and the means to develop products for specific segments of the market. Trespa is continually looking for ways to protect the environment even more effectively.

Four perfect product lines

Production of the façade cladding material Trespa Meteon is based on unique, patented techniques, which guarantee excellent weather resistance and colorfastness. Trespa Athlon, which offers outstanding moisture resistance along with scratch and wear resistance, is particularly suitable for interior use. Trespa Virtuon is aesthetically pleasing and the perfect product for interior applications where durability, hygiene, cleanability are required. And Trespa TopLab^{PLUS}, highly resistant to chemicals and designed for use as laboratory worktops, completes the product program.

ISO 9001

Trespa guarantees quality of both products and services. We offer our customers optimal technical support as well as straightforward documentation. Proof of this approach is the award of the ISO 9001 certificate.

Whatever your requirements, Trespa offers a full support service. Please contact us for further information.

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Responsibility
All information is based on our current state of knowledge. It is intended as information concerning our products and their application possibilities, and is therefore not intended as any form of guarantee with regard to any specific product characteristic.

Colors
The colors in this document are printed, and therefore, may vary slightly from the original Trespa panel colors with respect to gloss, color shades and surface texture. Original samples are available on request.

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All the best qualities in one panel

U213

our Trespa distributor: