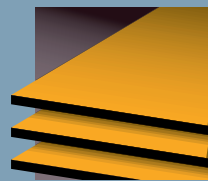


**Virtuon - More durable
More hygienic
More sense**

A new way to view interior surfaces



VIRTUON



TRESPA

All the best qualities in one panel

A new way to view interior surfaces. Aesthetics,

durability and cleaning are important factors when designing an interior environment. For applications where there are heavy numbers of users or there is a high demand for hygiene, the choice of materials becomes even more crucial. An interior that requires a lot of maintenance and cleaning will waste time and money. Equally, an environment that gets dirty quickly is more likely to attract graffiti and vandalism. Here is one way to avoid potential problems and create an interior that not only portrays a feeling of harmony but one that remains attractive to its users throughout its entire life cycle.

Trespa has used its expertise in harsh exterior settings and laboratory environments to create a whole new category of paneling that is perfect for tough interior applications. Combining our knowledge of humid and clinical situations, we developed Virtuo, a composite with extraordinary qualities. It incorporates our own unique Electron Beam Curing (EBC) Technology – offering users long-term aesthetics and greater hygiene. You could say, rather like a floor, Virtuo is a surface that has been designed with people in mind.

® TRESPA

Virtuon is manufactured using a process (including EBC Technology) that Trespa International B.V. has developed and patented. The result of this process is that the molecules are bound tightly to the surface. The combination of this surface with the equally impressive core gives Virtuon its unique and special characteristics. Throughout its lifecycle, the interior continues to retain its attractiveness – even in places where there is a high flow of human traffic. Swimming pool locker doors are



just one usage that benefits from a surface that provides both high impact resistance and high resistance to cleaning. To test and confirm the strength of this product, we installed pilot projects in spa's, swimming pools, metro stations and hospitals. These tests have been running for some years with excellent results that are further proof that a Virtuon composite retains its functional properties and its beauty over long periods of time.



Virtuon's durability is well suited to potentially hostile environments. Tests using accelerated ageing equipment show that it retains its color and surface sheen - even where there are changing climatic conditions and very high humidity. After years of punishment, Virtuon will show no signs of ageing, degradation or discoloration.

More durable

Virtuon – practical and beautiful. Virtuon is a whole new type of interior wall composite. Its practical qualities make it ideal for tough applications which include cubicles, lockers, wall cladding in hotels, hospitals, offices, schools, airports, train or subway stations, recreation parks, swimming pools - even bumper rails, to name a few. In addition, Virtuon's tactile surface is as pleasing to users as it is tough. In fact, few other materials are as well suited to



catering for both the functional and aesthetic needs of people. Virtuon also offers the latest in design trends. There is a wide choice of colors, ranging from uni colors to metallics, all of which can be combined beautifully with other materials. With Virtuon, there are lots of ways to create attractive people focused interiors.




Touch friendly surface



Hygiene regulations are constantly being reviewed and revised, particularly in hospitals or areas where food is prepared. Virtuon is an effective way to help protect people in those areas where health issues are of vital importance. Its smoother surface works in two ways. First, dirt or stains cannot penetrate Virtuon making it difficult for them to adhere or attach to the



surface. Second, Virtuon retains its closed surface structure even after repeated exposure to heavy cleaning. These properties make its surface easier to clean and disinfect. In addition, the smooth, sealed surface deters bacteria and prevents the growth of algae, molds or fungi.



Virtuon provides a safer environment for both employees and the public. Testing reveals that it is not damaged by the chemical or mechanical processes of heavy cleaning. This composite is a significant step forward in helping to meet the demands of increasingly more stringent hygiene requirements.

More hygienic

Virtuon – easier to clean everywhere. Virtuon's Electron Beam Cured surface is sealed to stop dirt and dyes from penetrating - it actually repels water and stains. Plus, common dirt, along with calcium and salts can be removed easily to restore the panel back to the state it was in when first installed. In fact, Virtuon performs exceptionally well across a broad range of potential problems. For example, tests in operating rooms show that the cleaning



agents preferred in clinical situations do not damage the surface. For public places, it has the welcome benefit of being resistant to the cleaning agents used to remove graffiti and paint. In addition, because it is so easy to clean it means important savings in time, effort and money.



Repels water & dirt



Interieurburo René PJ Vandaele



As well as being more durable and more hygienic, Virtuon makes more sense. For specifiers, this attractive, aesthetically pleasing product offers a broad spectrum of design possibilities. From a public perspective, the surface is friendly, warm and has a high tactile value. And its durability means it retains a new look, allowing people to enjoy surroundings that maintain their original appeal. The increased level of hygiene makes it an exceptionally safe environment for people too. In addition, it



has a low requirement for cleaning which can offer important savings on maintenance costs. The less frequent use of cleaning agents also benefits the environment – a fact that could be particularly important within the public sector.

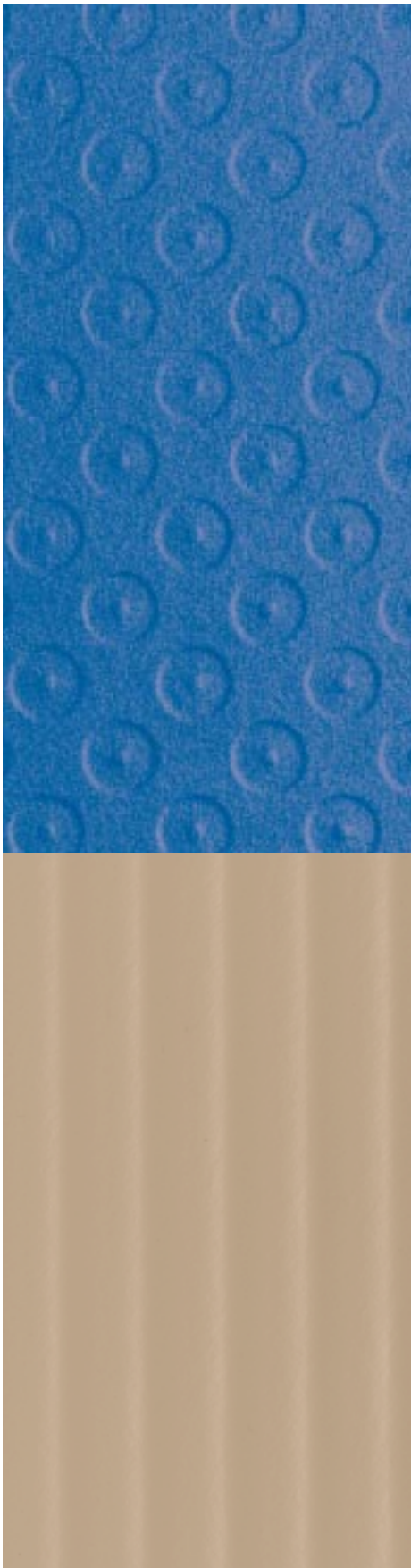


Easy removal



More sense

More choice. The design of an interior is important because it creates the atmosphere of a room - influencing the emotions of the people using it. Virtuon fulfills the need for pleasing design by offering a wide range of colors, as well as textured and metallic surfaces, which can be blended perfectly with other materials like glass, wood and tiles. With the Virtuon range, there are numerous possibilities to create interiors with the right character and mood for their setting.



Manufacture. Trespa Virtuon is a decorative solid grade panel consisting of thermosetting resins, homogeneously reinforced with cellulose fibers and manufactured under high pressure and high temperature. This unique process creates a monolithic, homogeneous panel without pores in the surface or in the core.

Fixing. Trespa Virtuon is easy to install. It can be fixed visibly, semi blind or blind (the invisible fixing offers high pull-out resistance and Virtuon does not cause corrosion of fixings). It may be necessary to install wiring before wall construction. These can be concealed behind the panel.

If you have questions concerning fixing techniques, panel thickness, sizes and colors, distributor and fixing contractor details, our sales representatives will be pleased to offer assistance.

Material properties Trespa Virtuon

Properties	Value	Unit	Standard
Physical properties			
Specific gravity	± 1.400	kg/m ³	ASTM-D 792-91
Weight	Thickness 8 mm	5/16"	2 lbs/sq/ft
	Thickness 10 mm	3/8"	3 lbs/sq/ft
	Thickness 13 mm	1/2"	4 lbs/sq/ft

Optical properties

Resistance to color change in UV-light	> 4	Gray Scale	ISO 4586-2
Resistance to steam	> 4	class	ISO 4586-2

Mechanical properties

Modulus of elasticity*	1,200,000 PSI		
Tensile strength*	13,000 PSI		
Flexural strength*	14,500 PSI		
Impact resistance*	indexnr. 4	index number	EN 438 -2 (11)
Scratch resistance*	indexnr. 4	index number	EN 438 -2 (14)

Cleaning properties

Removing graffiti, residue and common dirt: good

Cleaning properties have been determined by cleaning with commercially available cleaning agents according to manufacturer's instructions.

Resistance to cleaning

Cleaning with high pressure sprayer	no change in appearance or properties
Cleaning with reference agents for the removal of graffiti, remnants of paint, ink, glue	no change in appearance or properties
Cleaning with reference agents for the removal of residue and cement deposits	no change in appearance or properties
Cleaning with reference agents for bleaching agents, disinfectants, and water based cleaners	no change in appearance or properties

Resistance has been determined by cleaning with (concentrated) reference agents

Hygienic properties

Surface disinfection	official report IKI available
Contact with food	official report ISEGA available

Fire behavior

ASTM E-84 UL Classified

Grade	Panel Thickness	Flame Spread	Smoke Development
Fire Rated	1/4" to 1"	10	45-75
Standard	1/4" to 3/8"	50	300
	1/2"	30	85
	5/8" to 1"	25	70

PANEL IS RECOMMENDED FOR USE IN INTERIOR APPLICATIONS

Whatever your requirements, Trespa offers a full support service. For detailed information regarding delivery program please contact your dealer or visit www.TrespaNorthAmerica.com.

Trespa Virtuon

A self-supporting panel for interior applications, based on thermo setting resins, homogeneously reinforced with wood-based fibers and manufactured under high pressure and high temperature, giving a homogeneous panel with a closed structure, without pores in either the surface or the core. The panels have a surface based on crosslinked copolymers.

To prevent damage from cleansing agents such as graffiti removers, lime-scale removers and cement deposit removers, the surface offers at least 24 hours protection against 10% hydrochloric acid, 10% phosphoric acid, 30% hydrogen peroxide, 25% caustic soda, 100% thinner and 100% methyl ethyl ketone without functional or aesthetic damage to the surface. The surface can be effectively disinfected and presents no problems when used in rooms where food is stored, handled or used, as long as this is not in contravention with specific hygiene regulations.

Trespa Virtuon Metallic

The characteristics are identical to those of Trespa Virtuon but with the addition of the following.

The panel has a surface whereby the incidence of light and changes in light intensity can produce a spectacular optical effect. The clarity of the color depends on the angle of perception and, with sufficient light, the surface gives a sparkling reflection. This surface displays a two-tone effect, which provides additional design freedom.

Trespa supplies solutions.

Registered trademarks

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Responsibility

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Colors

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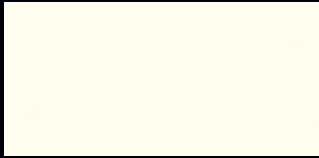
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Trespa services Further information on preparing, processing and assembling Trespa panels is available on request. Specification texts, color cards, samples and completed project references are also available.

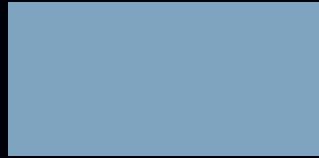
Our consultants will also be pleased to offer advice on technical questions, fixing techniques, different panel thicknesses, sizes and colors, addresses of distributors and fixing contractors.

www.trespa.com

Virtuon Uni-colors



K05.0.0 Pure white



K22.2.4 Powder blue



K04.1.7 Gold yellow



K03.0.0 White



K24.3.5 Turquoise blue



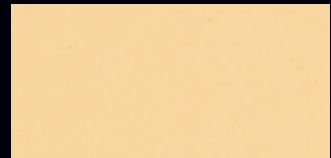
K05.1.2 Champagne



K03.1.0 Pastel gray



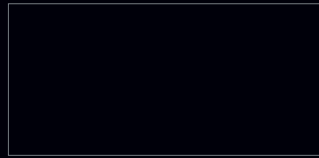
K21.5.4 Cobalt blue



K07.1.1 Sand



K03.4.0 Silver gray



K90.0.0 Black



K08.2.3 Salmon



K32.2.1 Translucent green



K09.1.8 Orange



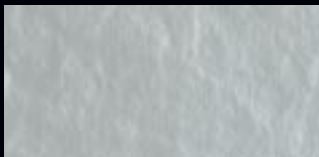
K28.2.1 Aquamarine

other uni-colors upon request



K12.3.7 Carmine red

Textures



K03.4.0 Rock



K03.4.0 Ribbon



K03.4.0 Silk



K03.4.0 Bark



K03.4.0 Satin

Virtuon Metallics



J04.0.0 Pearl



J14.4.1 Rose quartz



J12.4.2 Garnet red



J51.0.1 Aluminium gray



J20.4.2 Northern light



J53.0.1 Copper red



J06.4.1 Amber



J18.7.2 Amethyst



J53.0.2 Copper yellow



J21.8.1 Graphite gray



J21.3.4 Azurite blue



J40.4.3 Mustard yellow



J35.7.1 Malachite green



J24.3.3 Lagoon



J34.3.1 Bottle green

Textures



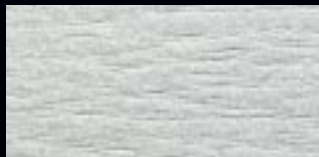
J51.0.1 Rock



J51.0.1 Ribbon



J51.0.1 Rhino



J51.0.1 Bark



J51.0.1 Satin

Delivery program Trespa Virtuon			Textures			
Surface combinations:	silk	satIn	rock	bark	rhino	ribbon
	- double sided color - single sided color with black reverse - Varitop color on one side and pure white (K05.0.0 silk) reverse	- double sided color - single sided color with black reverse - Varitop color on one side and pure white (K05.0.0 silk) reverse	- double sided color - single sided color with black reverse - Varitop color on one side and pure white (K05.0.0 gloss quartz) reverse	- double sided color - single sided color with black reverse - Varitop color on one side and pure white (K05.0.0 gloss quartz) reverse	- double sided color - single sided color with black reverse - Varitop color on one side and pure white (K05.0.0 gloss quartz) reverse	- double sided color - single sided color with black reverse - Varitop color on one side and pure white (K05.0.0 gloss quartz) reverse
Panel sizes:	inches 2550x1860 (100"x73") (mm) 3050x1530* (120"x60") 3650x1860 (143"x73") *(upon request)	2550x1860 (100"x73") 3050x1530* (120"x60") 3650x1860 (143"x73") *(upon request)	2550x1860 (100"x73") 3050x1530* (120"x60") 3650x1860 (143"x73") *(upon request)	2550x1860 (100"x73") 3050x1530* (120"x60") 3650x1860 (143"x73") *(upon request)	2550x1860 (100"x73") 3050x1530* (120"x60") 3650x1860 (143"x73") *(upon request)	2550x1860 (100"x73") 3050x1530* (120"x60") 3650x1860 (143"x73") *(upon request)
Standard panel thicknesses:	inches 5/16", 3/8", 1/2", 3/4" * Other thicknesses on request (mm) (8, 10, 13, 19 mm)	5/16", 3/8", 1/2", 3/4" (8, 10, 13, 19 mm)	5/16", 3/8", 1/2", 3/4" (8, 10, 13, 19 mm)	5/16", 3/8", 1/2", 3/4" (8, 10, 13, 19 mm)	3/8", 1/2", 3/4" (10, 13, 19 mm) Advice to use 1/2" in wet environments-	3/8", 1/2", 3/4" (10, 13, 19 mm) Advice to use 1/2" in wet environments
Type of panel core:	- Standard black core - Fire retardant standard black core	- Standard black core - Fire retardant standard black core	- Standard black core - Fire retardant standard black core	- Standard black core - Fire retardant standard black core	Standard black core	- Standard black core
Colors	code	•				
METALLICS		•	•			
Pearl	J04.0.0	•	•	•	•	•
Amber	J06.4.1	•	•	•	•	•
Garnet red	J12.4.2	•	•	•	•	•
Rose quartz	J14.4.1	•	•	•	•	•
Amethyst	J18.7.2	•	•	•	•	•
Northern light	J20.4.2	•	•	•	•	•
Azurite blue	J21.3.4	•	•	•	•	•
Graphite gray	J21.8.1	•	•	•	•	•
Lagoon	J24.3.3	•	•	•	•	•
Bottle green	J34.3.1	•	•	•	•	•
Malachite green	J35.7.1	•	•	•	•	•
Mustard yellow	J40.4.3	•	•	•	•	•
Aluminium gray	J51.0.1	•	•	•	•	•
Copper red	J53.0.1	•	•	•	•	•
Copper yellow	J53.0.2	•	•	•	•	•
UNI-COLORS (other colors upon request)	•	•	•	•	•	•
White	K03.0.0	•	•	•	•	•
Pastel gray	K03.1.0	•	•	•	•	•
Silver gray	K03.4.0	•	•	•	•	•
Gold yellow	K04.1.7	•	•	•	•	•
Pure white	K05.0.0	•	•	•	•	•
Champagne	K05.1.2	•	•	•	•	•
Sand	K07.1.1	•	•	•	•	•
Salmon	K08.2.3	•	•	•	•	•
Orange	K09.1.8	•	•	•	•	•
Carmin red	K12.3.7	•	•	•	•	•
Cobalt blue	K21.5.4	•	•	•	•	•
Powder blue	K22.2.4	•	•	•	•	•
Turquoise blue	K24.3.5	•	•	•	•	•
Aquamarine	K28.2.1	•	•	•	•	•
Translucent green	K32.2.1	•	•	•	•	•
	K90.0.0	•	•	•	•	•



Environmental. Conforming to Trespa's own environmental policy, we were among the first producers of building materials to carry out an LCA (Life Cycle Analysis) in cooperation with Imtron (Institute for Materials and Environmental Research B.V.). The analysis includes product, plus product related fields such as environmental pollution due to cleaning and maintenance, transport and disposal. All the aspects of the production, use and disposal of Trespa Virtuon are optimized according to ecological guidelines wherever possible.

The technology used in Virtuon surface production offers the following environmental benefits:

- No solvents are used in production.
- No heavy metals are used.
- The energy requirements during curing are extremely low.
- Recycling is possible.
- More than 60% of raw materials are renewable.
- The durability of the product ensures the performance of the composite throughout its entire life cycle.



VISIT OUR NEW WEBSITE
WWW.TRESPA.COM

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 you 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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V226 / 0303



All the best qualities in one panel