

Installation guidelines interior building and furnishing applications

Trespa Athlon is a flat panel based on thermosetting resins homogeneously reinforced with cellulose fibres and manufactured under high pressure and temperature. Using special techniques, the panels have an integrated decorative surface made of melamine impregnated paper. The resulting properties make the panel material particularly suitable for a wide range of interior applications.



Trespa Toplab is also a flat panel based on thermosetting resins homogeneously reinforced with cellulose fibres and manufactured under high pressure and temperature. However, these panels receive a decorative surface with an exceptional resistance to chemicals. This decorative surface is created using pigmented resins which are hardened by means of electron beams (E.B.C.= Electron Beam Curing).

Product range Trespa Athlon

- Standard panel sizes:
 - 3050 x 1530 mm
 - 2550 x 1860 mm
- Standard panel thicknesses:
 - 6 - 8 - 10 - 13 mm
(surface structure Quartz)
 - 6 - 13 - 16 - 20 mm
(surface structure Crystal matt)

Trespa Athlon corner profiles

- Standard profile sizes:
 - 1860 x 300 x 300,
radius 20 mm
 - 3050 x 300 x 300,
radius 20 mm
- Standard thickness:
 - 8 - 10 - 13 mm
(surface structure Quartz)

Colours

Trespa Athlon is standard available in 36 plain colours, 16 speckled patterns, 21 fantasy colours and 6 wood decors.

Product range Trespa Toplab

- Standard panel sizes:
 - 3050 x 1530 mm
- Standard panel thicknesses:
 - 13 - 16 - 20 - 25 mm
(surface structure Crystal matt)

Colours

Trespa Toplab is available in 5 standard plain colours.



All the best qualities in one panel

Transport and storage

- During transportation, use stable flat pallets at least the same dimension as the sheets.
- When moving a sheet, lift it to prevent scratches on the panel surface.
- The sheets should be stored in an enclosed area, protected against moisture and heat, in a normal ambient temperature and humidity.
- For horizontal storage on pallets, the sheets should be supported over the entire surface with a protective layer between the pallet and the bottom sheet and also on the uppermost sheet.
- For vertical storage the sheets should be upright on their sides and be supported over the full height.



Processing

Sawing

■ Stationary circular saw:

Section	Teeth	Number of revolutions	Blade thickness	Height setting
300 mm	72	6,000	3.4 mm	30 mm
350 mm	84	5,000	4.0 mm	35 mm
400 mm	96	4,000	4.8 mm	40 mm

■ Feed:

7 - 22 m/min.

■ Tooth:

Alternate tooth or trapezoidal flat tooth.

■ Jig saw:

Carbide-tipped, interior corners of cut-outs should be drilled first with 6 mm hole diameter.

■ Entering tooth:

At the decorative side of the panel.

■ Cut edges:

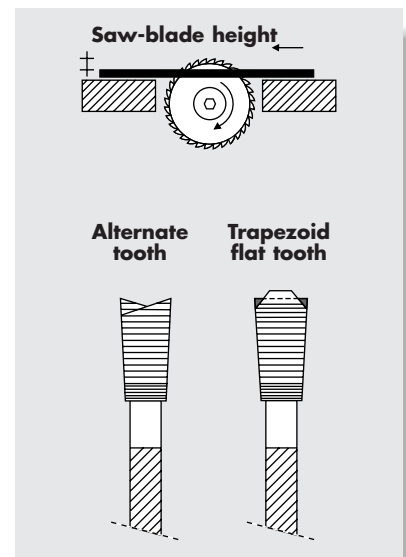
The best results are obtained with stationary machines. Any sharp edges can be removed with sandpaper or router.

■ Rake angle:

A rake angle of 45° gives the best performance.

■ Corner profiles:

First cut to length, then saw to the correct leg length. Measure the length of leg from the corner.



All the best qualities in one panel

Routing

Do not remove the protective film on Trespa Toplab until it is assembled. If the film burns or melts during routing, remove only the film in the edge areas.

Manually operated routing cutter spindle moulder:

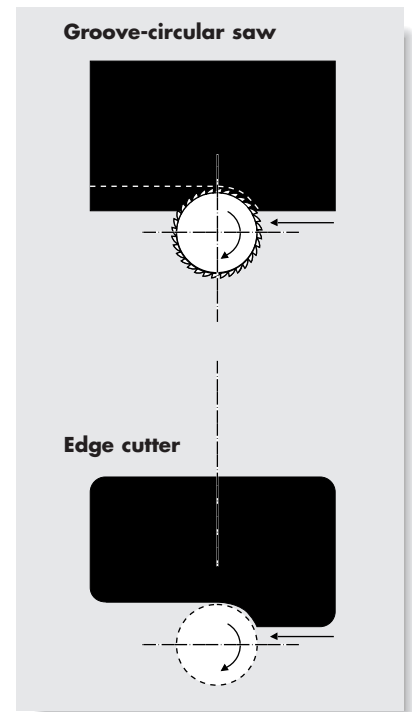
Diameter	Number of revolutions	Speed	Start
20-25 mm	18,000-24,000	20-30 m/sec.	
125 mm	6,000-9,000	40-60 m/sec.	5-15 m/min.

Routing shapes:

- Straight and slanted bits for cutting edges and bevelling.
- Hollow or round ground bits for rounded edges.
- Diamond groove-circular saw blades for grooves (diameter 125 mm, 8 teeth, blade thickness = tongue thickness + 0.2 mm).

Material:

Cutters made of hard metal or diamond.



Drilling

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

Section	Number of revolutions	Start
5 mm	3,000	60-120 mm/min.
8 mm	2,000	40- 80 mm/min.
10 mm	1,500	30- 60 mm/min.

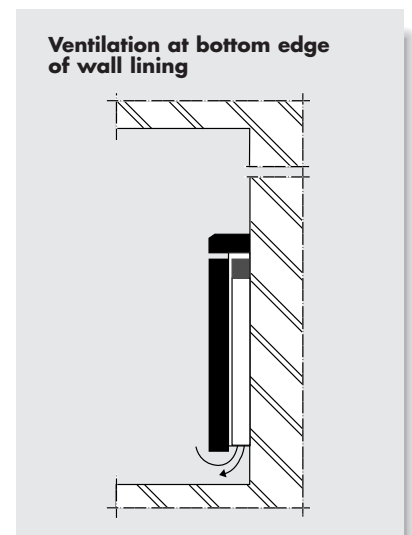
Large holes, e.g. for suspension and locking equipment, are to be drilled with combination drills without a centering point.

Glueing

Trespa Construction Adhesive is recommend for fixing interior wall cladding panels where no access is needed.

Please follow the instructions below for thickening the edges of panels with strips of Trespa:

- Panels and strips must have the same “grain direction”.
- Panels, strips and adhesive must be pre-conditioned in the same way (temperature and humidity preferably the same as the future conditions of use)



All the best qualities in one panel

- Remove grease from surfaces to be glued, slightly roughen them and ensure they are dust-free.
- Additional support of screws from the underside is advisable where applications are subject to downward weight loading. Screw heads should be sunk below the surface.

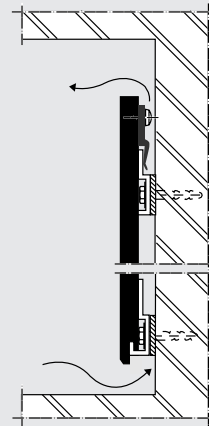
Type of adhesive	Application	Open time	Pressure	Pressure time
Epoxy	100-250 g/m ²	depends on type	0.2 N/mm ²	4-8 hours at 20° C
Poly-urethane	100-250 g/m ²	depends on type	0.2 N/mm ²	4-8 hours at 20° C

General installation guidelines

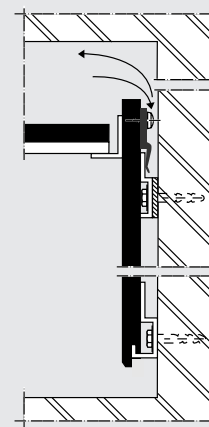
Dimension stability:

- As a result of their composition, Trespa Athlon and Trespa Toplab can work just like hard wood.
 - The temperature and humidity acting on the front and rear sides should not differ over a long period of time;
 - Undersides of horizontal workbenches and rear sides of vertical wall cladding should therefore be well ventilated;
 - Panel edges should not be permanently wet. If panels are held in profiles, the profiles must be provided with drainage devices;
 - When fixing panels it is important to take account of a maximum movement of 2.5 mm/m² (except laboratory benching). Drillholes and joints must be dimensioned accordingly;
 - Do not fix screws too tightly in order to allow the panels to move.

Ventilation openings at top and bottom edges



Ventilation above lowered ceiling



Installation of horizontal writing desks or worktops

■ Product:

Trespa Toplab or Trespa Athlon (surface structure Crystal)

■ Thickness:

Up from 13 mm.

■ Fixing:

Fix with inserts or thread cutting screws.

Maximum drillhole depth = panel thickness minus 3 mm.

Drillhole diameter in panels according to the instructions of the supplier of the fixing means, capable of accepting the shank of the screw.

Drillholes in the support construction must allow the panels to move: fit slotted holes or allow diameter of the drillholes = screw diameter + 3 mm.



All the best qualities in one panel

If more than two panels are joined together (e.g. for long wall benches), slotted holes of sufficient length must always be made in the support construction.

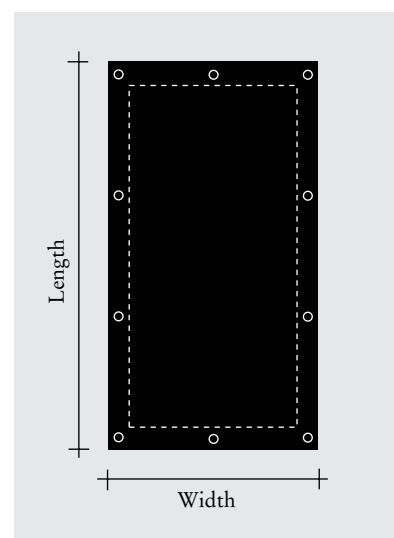
■ **Support construction:**

The support construction made of steel or aluminium must be sufficiently strong and rigid to withstand bending as a result of the load applied on top of the panel. If any other fittings are provided underneath the panel (drawers, boxes, pipes), then the support construction must be dimensioned accordingly.

■ **Maximum support and fixing intervals:**

Writing desks and worktops supported at the edges.

Panel-thickness	Panel-width	Maximum panel length	
		Desktop load < 35 kg/m ²	Worktop load < 100 kg/m ²
13 mm	700 mm	unlimited	unlimited
	800 mm	unlimited	1200 mm
	900 mm	unlimited	900 mm
	1000 mm	1400 mm	
	1100 mm	1100 mm	
16 mm	800 mm	unlimited	unlimited
	900 mm	unlimited	1400 mm
	1000 mm	unlimited	1200 mm
	1100 mm	1800 mm	
	1200 mm	1500 mm	
	1300 mm	1300 mm	
20 mm	1000 mm	unlimited	unlimited
	1100 mm	unlimited	1500 mm
	1200 mm	unlimited	1200 mm
	1300 mm	1800 mm	
	1400 mm	1600 mm	
	1500 mm	1500 mm	
25 mm	1100 mm	unlimited	unlimited
	1200 mm	unlimited	2000 mm
	1300 mm	unlimited	1700 mm
	1400 mm	2600 mm	1400 mm
	1500 mm	2200 mm	



■ **Sink Lids:**

Should be installed with caution. Adequate ventilation is needed to prevent moisture forming on the underside causing bowing of the lid.



All the best qualities in one panel

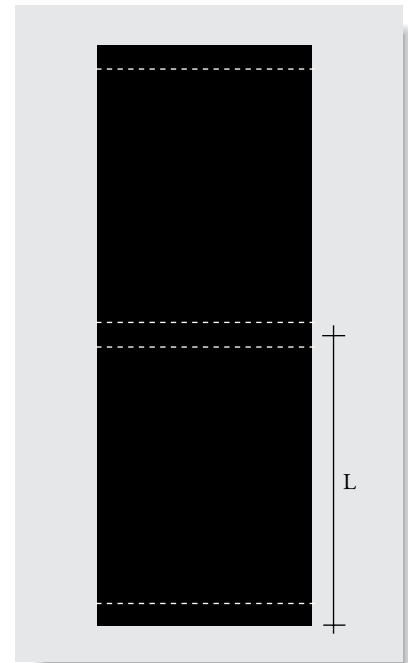
■ **Span over 2 or more supports:**

Number of supports	Panel-thickness	Maximum support interval L	
		Writing desk load < 35 kg/m ²	Worktop load < 100 kg/m ²
2	13 mm	850 mm	700 mm
	16 mm	950 mm	800 mm
	20 mm	1100 mm	900 mm
	25 mm	1300 mm	1100 mm
3	13 mm	1050 mm	850 mm
	16 mm	1200 mm	1000 mm
	20 mm	1400 mm	1150 mm
	25 mm	1500 mm	1350 mm
4	13 mm	1000 mm	800 mm
	16 mm	1000 mm	950 mm
	20 mm	1000 mm	1000 mm
	25 mm	1000 mm	1000 mm

(the maximum panel length is 3050 mm!)

■ **Fixing intervals:**

- Minimum distance from the edge: 20 mm.
- Maximum distance from the edge: 150 mm.
- At least 6 screws per m² of panel surface area.
- Distribute screws evenly throughout the support construction.



Installation of partitions

■ **Product:**

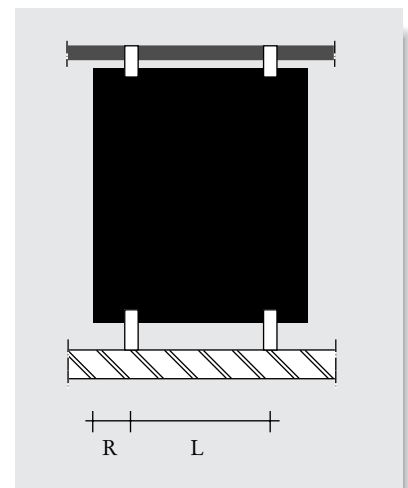
Trespa Athlon (surface structure Quartz).

■ **Thickness:**

13 mm upwards (most suppliers of auxiliary equipment match their products to this panel thickness).

■ **Fixing:**

Foot brackets, wall brackets, profile systems and suspending and locking devices must be of a sufficiently heavy design to be able to support the weight of the panels, and to withstand the mechanical strains acting on the panels.



All the best qualities in one panel

■ **Maximum fixing intervals when fixed on supports:**

On the top and bottom sides of supported panels:

- Maximum panel height 1860 mm.
- Maximum distance from the edge R 150 mm.

Panel thickness	Maximum fixing interval L	
	2 supports	3 or more supports
13 mm	950 mm	1200 mm
16 mm	1100 mm	1350 mm

■ **Panels supported on both vertical sides:**

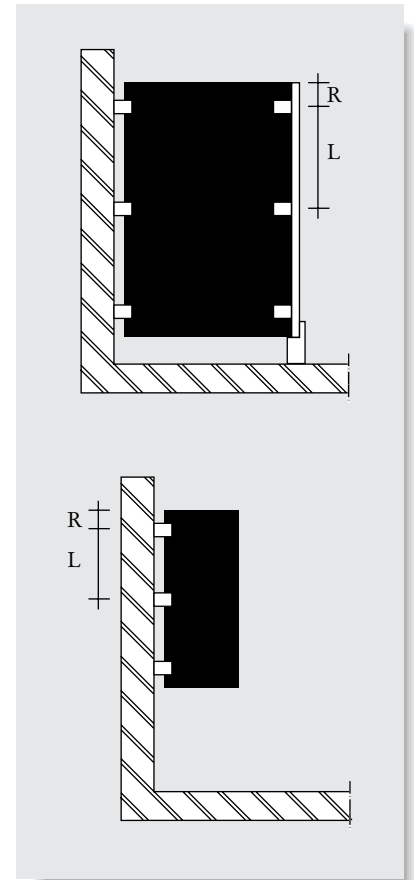
Maximum distance from the edge R 150 mm

Panel thickness	Panel width	Maximum fixing interval L	
		2 supports	3 or more supports
13 mm	< 1200 mm	800 mm	900 mm
16 mm	< 1350 mm	950 mm	1050 mm

■ **Panels supported on one vertical side:**

- Maximum distance from the edge R 100 mm for 10 mm panels.
- Maximum distance from the edge R 150 mm for 13 mm and 16 mm panels.

Panel thickness	Panel width	Maximum fixing interval L	
		2 supports	3 or more supports
10 mm	< 300 mm	400 mm	500 mm
13 mm	< 400 mm	500 mm	600 mm
16 mm	< 450 mm	550 mm	650 mm



Installation of wall lining

■ **Product:**

Trespa Athlon (surface structure Quartz).

■ **Thickness:**

6 mm upwards

■ **Ventilation:**

In order to avoid large differences in vapour pressure or condensation on the cavity side there must be a free ventilation space of at least 20 cm²/m¹ of the wall cladding width over the entire height of the wall cladding panels. This space should ideally be open at the top and bottom venting into the room. Wherever this is not possible due to specific demands, the space must at least be opened venting into the room at the top (possibly above a lowered ceiling) or at the bottom.



All the best qualities in one panel

Visible fixing with screws

■ Timber battens:

Planed battens, at least 34 x 35 mm.
At panel joints at least 34 x 75 mm.

■ Fixing:

Rounded head wooden screw 4 x 35 mm.

- Stainless steel.
- Boreholes round 6 mm.
- Countersink recess diameter 12 mm, 6 mm deep.
- Cover caps in several light colours.

■ Distance from the edge:

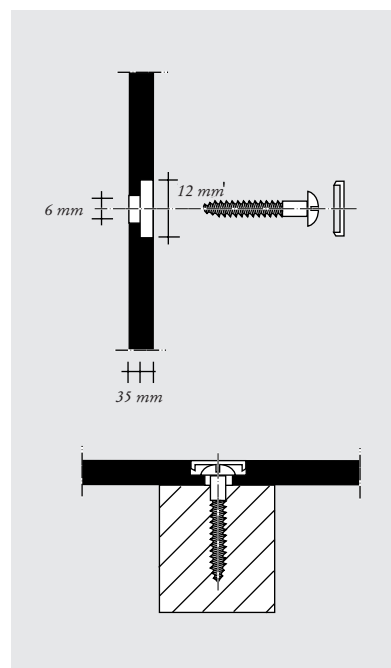
At least 20 mm, no more than 10 x panel thickness.

■ Joint width:

At least 8 mm.

Maximum fixing intervals:

Panel thickness	2 fixing points in one direction	3 or more fixing points in one direction
8 mm	550 mm	700 mm
10 mm	700 mm	850 mm



Invisible fixing with adhesive

■ Timber battens:

Always use planed battens. Minimum dimensions:

- end battens 45 x 28 mm;
- centre battens 55 x 28 mm;
- at joints 85 x 28 mm.

■ Fixing:

Apply vertical adhesive beads.

Maximum panel length: 2550 mm.

Maximum panel surface area: 2.5 m².

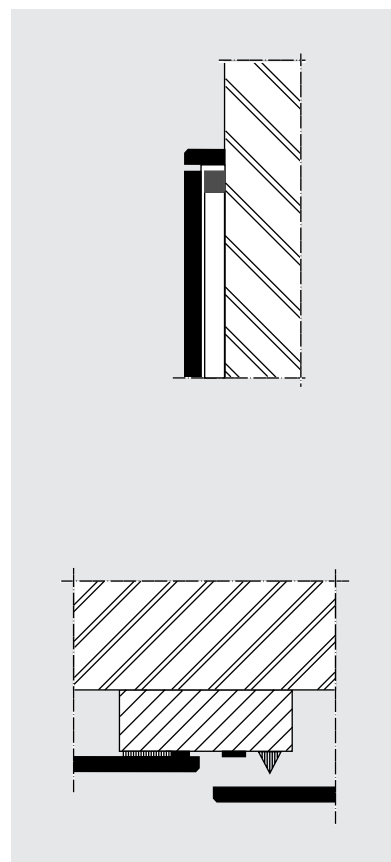
Adhesive systems recommended by Trespa:
Trespa Construction Adhesive.

■ Joint width:

At least 8 mm.

Maximum fixing intervals:

Panel thickness	2 adhesive beads per panel	more than 2 adhesive beads
6 mm	450 mm	550 mm
8 mm	600 mm	650 mm
10 mm	650 mm	650 mm



All the best qualities in one panel

Invisible fixing with inserts or thread cutting screws

Panels of 8 mm thickness and more can be fixed by fitting aluminium brackets with inserts or thread cutting screws on the rear side of the panels, then hanging the panels onto the subframe. At the bottom, the panels are placed on a special support profile. The topmost row(s) of brackets should be fixed 2.5 mm per metre panel height higher in order to allow the panels to move.

■ Fixing

The fixing systems are supplied together with all of the auxiliary material required by specialized companies. These companies also offer advice regarding assembly and auxiliary materials.

■ Distance from the edge

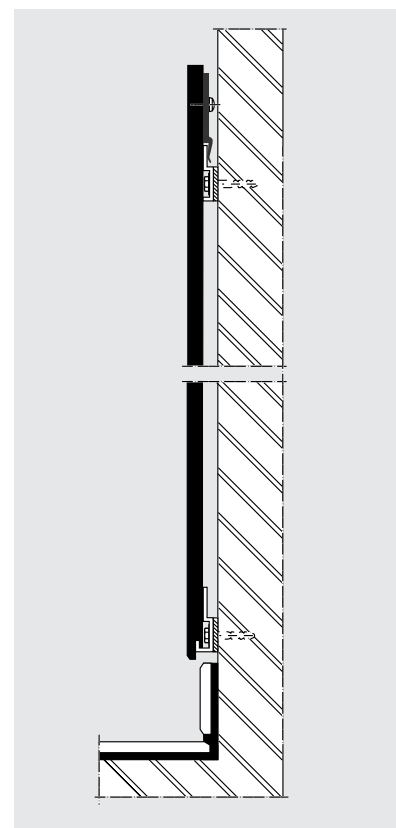
At least 20 mm, no more than 10 x panel thickness.

■ Joint width

At least 8 mm.

Maximum fixing intervals:

Panel thickness	2 fixing points in one direction	3 or more fixing points in one direction
8 mm	550 mm	700 mm
10 mm	700 mm	850 mm
13 mm	850 mm	1000 mm



Joint finishing

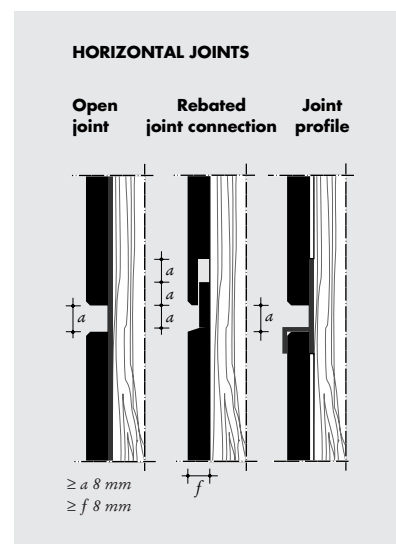
Depending on the hygienic or optical requirements in each case, joints can be left open or closed

■ Closed joints

- Always carry this out in such a way that the joint finishing cannot hinder the movement of the panels.
- If the wall cladding is fitted in front of a recently built brick wall or a recently cast concrete wall, the moisture still present in the construction must be allowed to evaporate. It may be necessary to leave the joints open for some time in order to ensure proper ventilation of the rear side of the panels.

■ Rebated joints

- Possible with panel thicknesses of 8 mm and above;
- Length of rebate 2 x joint width.



All the best qualities in one panel

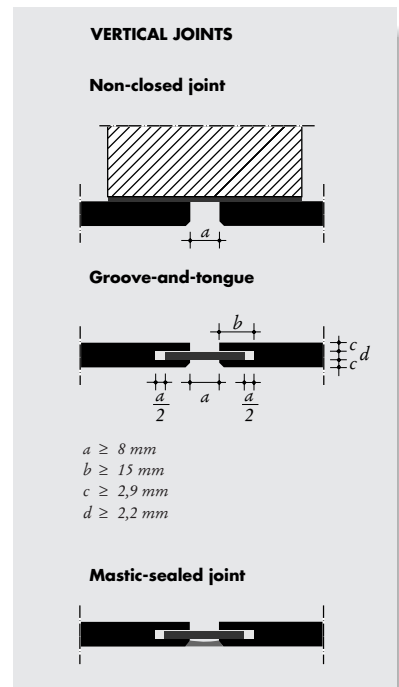
■ Groove and tongue

- Groove 2.2 x 15 mm for aluminium
tongue 2 x 30 mm.
Possible with panel thicknesses from 8 mm.
- Groove 3.2 x 15 mm for Trespa
tongue 3 x 30 mm.
Possible with panel thicknesses from 10 mm.

■ Sealing with mastic

Wherever this is desired in the interests of easy cleaning and disinfecting, rebated or groove-and-tongue joints can be sealed with mastic. The following guidelines should be observed:

- Only use mastic which remains elastic. The mastic used must not hinder the natural movement of the panels and should not crack off as a result of this movement. We recommend using silicone sealing mastic in accordance with ISO 846 to avoid mould formation.
- The rear surface of the joint to be sealed must be made non-adhesive prior to application of the mastic. The side edges of the joint must be clean and grease-free in order to ensure optimal adhesion.
- The instructions provided by the mastic supplier must be strictly observed.



Your Trespa distributor:

More information on
Trespa Toplab and Trespa
Athlon is available from:

Trespa UK Ltd
Grosvenor House
Hollinswood Road
Central Park, Telford
TF2 9TW
Tel.: 0 1952 290707
Fax: 0 1952 290101
e-mail: Info@trespa.co.uk
website: http://www.trespa.co.uk

Registered trademarks

® Trespa, Meteon, Athlon, Toplab, Volkern and Ioniq are registered trademarks of Trespa International BV.

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.

Copyrights

© All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or made public, in any form or by any means, either graphic, electronic or mechanical, including photocopying, recording or otherwise, without the prior written permission of Trespa International BV.

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.



HUK/013 (3.000)
Weert, September 1998



All the best qualities in one panel