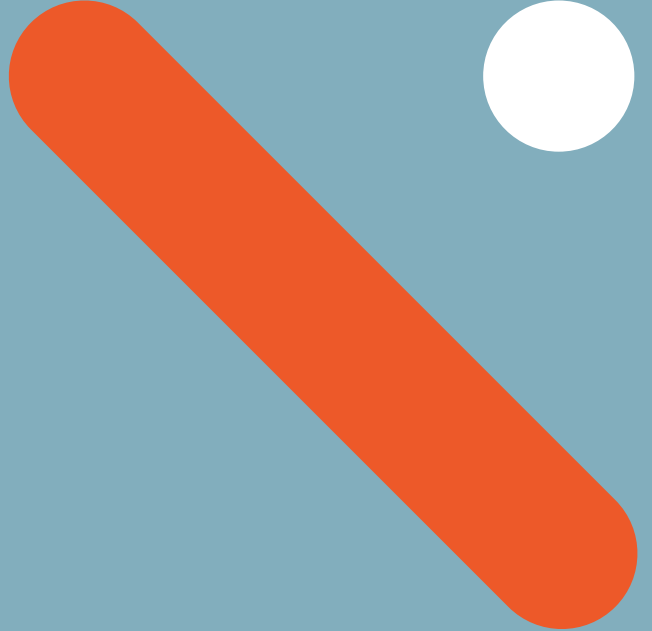
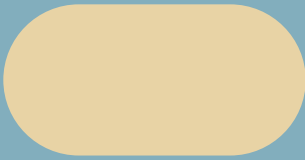


December 2012



1 — GENERAL INFORMATION

1.1 “Solid” range

The wide range of typologies, thicknesses and colours of Arpa HPL laminates offers interior designers, architects and furniture manufacturer's great creative freedom, so they can follow their inspirations without constraint. The specific qualities of each typology make HPL suitable for numerous applications. Arpa Solid (compact) panels are high-pressure panels produced according EN438; under high pressure and high temperature. They are suitable for high demanding applications.

Solid Standard

Compact, self-supporting laminate, very stable and hard-wearing. Single or double sided. From 2 to 30 mm thick.

Solid Core

Self-supporting and compact. Decorative finish with a monochrome “core” available in five colours. From 2 to 12 mm thick.

Unicolor

Laminate homogeneously coloured throughout its thickness available in the full Colorsintesi range. From 2 to 12 mm thick.

Multicolor Standard

Compact, self-supporting, with layers of different colours. From 2 to 14 mm.

Multicolor Evolution

Double-sided compact laminate which combines a coloured core with a variety of decors. From 4 to 14 mm thick.

Naturalia

Thick material made of wood fibre from certified forests. It is a high density and very high performance product, homogeneous, compact, self-supporting, waterproof and with high load bearing properties. Standard thicknesses 6.4, 9.7 and 12.8 mm.

No Decor. Phenolic Compact Laminate

Core without any decorative paper on external surface. From 4 to 20 mm thick.

Application

Furniture

Cleanrooms such as operating theatres, laboratories, Changing cubicles, lockers

1.2 Formats

Solid Standard

2440x1220mm, 3050x1300mm, 4200x1300mm, 4200x1600m, 4300x1850mm

Solid Core

3050x1300mm, 4200x1300mm, 4200x1600m

Unicolor

3050x1300mm, 4200x1300mm, 4200x1600m

Multicolor

3050x1300mm, 4200x1300mm, 4200x1600m

Multicolor Evolution

3050x1300mm, 4200x1300mm

Naturalia

3050x1300mm

No Decor

3050x1300mm, 4200x1300mm, 4200x1600m, 4300x1850mm

1.3 Grades

Solid panels are available as CGS (standard grade). Solid Standard is also available as CGF (flame retardant grade). For further details on test reports, certifications for reaction to fire please contact your local Arpa representative. Please check our website or contact Arpa Customer Service for detailed information.

1.4 Fields of application

Arpa Solid panels are suitable for indoor application such as furniture, tables, desks, equipment wall cladding, infill panels etc. Due to their high density and resistance to humidity they are well suited to wet area applications such as shower cubicles, swimming pool lockers, etc.

Wall cladding

Bumper rails

Wall cladding and party walls for showers and sanitary units

Market Sectors

Office



Hospitality & Restuarants



Education



Retail & Contract



Kitchen



Healtcare & Wellness



2 — HANDLING AND STORAGE

General

Handling and moving panels should only be done with suitable equipment. Panels should be handled with care to prevent damage to the decorative surface. Furthermore, treat the panels similar to treating hardwood.

2.1 Storage

Store panels in a dry clean frost free room.
Place pallets and panels on a level surface which provides full support.
Keep panels in the original packaging where possible.
Remove steel straps if the panels are to be stored for a long time.
Prevent a film of moisture from forming between the panels.
Do not place any moisture-sensitive (paper) layers between the panels.
Prevent unbalanced (one side only) moisture or temperature exposure by:

1. Removing any protective foil within 24 hours when panels are no longer stacked as a package.
2. Leaving panels lying flat on top of each other.
3. Avoiding cavities between the panels e.g. due to panels having been machined.

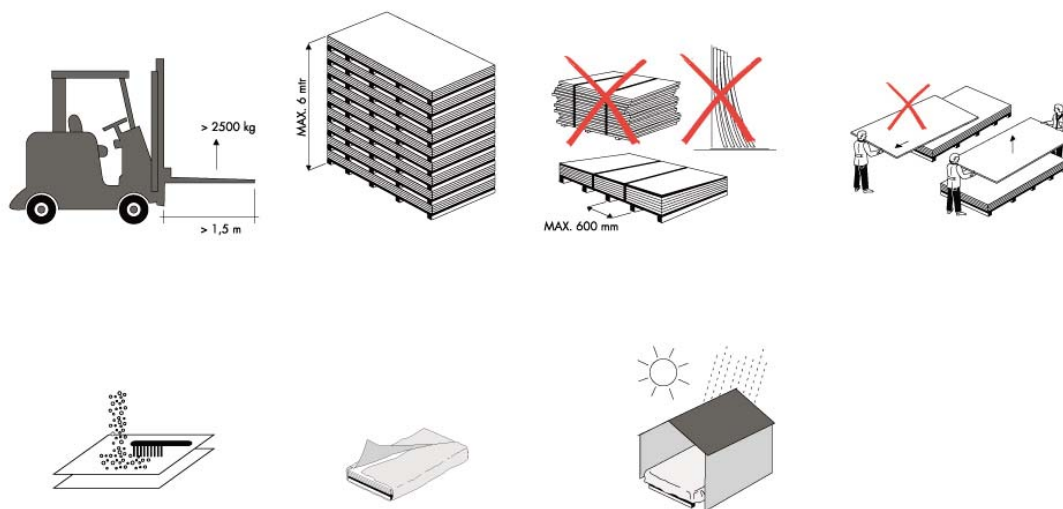
Protective films must always be removed from both sides at the same time.

2.2 Handling

Treat panels with care.
Do not slide panels. Lift panels when moving.
Prevent dirt on and between the panels.
Use adhesive stickers for marking / coding and remove immediately after installation.

2.3 Transport

Secure the panels with steel straps during transit.
Fit protective corner sections under the straps.



3 — MAINTENANCE AND CLEANING

3.1 Maintenance

HPL surfaces should be cleaned regularly but does not require any special maintenance, just a damp cloth with warm water or mild detergents. Almost all normal household cleaning products or disinfectants can be used perfectly well, as long as they are not abrasive or highly alkaline.

The table below shows the cleaning products and methods best suited to different types of dirt.

3.2 Recommendations for cleaning the surface oh hpl for interior products

Type of dirt	Recommended cleaning product and method of application
Syrup, fruit juice, jam, spirits, milk, tea, coffee, wine, soap and ink	Water with a sponge
Animal and vegetable fats - sauces - dry blood - dry wine and spirits - eggs	Cold water with soap or household detergent with a sponge
Smoke black - gelatine - vegetable and vinyl based glues organic waste - gum arabic	Hot water with soap or household detergent with a sponge
Hair spray - vegetable oil - biro and felt tip pens - wax foundations and greasy make-up - residual solvent marks	MEK, alcohol, acetone with a cotton cloth
Nail polish - spray lacquer - linseed oil	Acetone with a cotton cloth
Synthetic oil paints	Trilene nitre based solvent with a cotton cloth
Neoprene glues	Trichloroethane with a cotton cloth
Traces of silicone	Wooden or plastic scraper, taking care not to scratch the surface
Lime deposits	Detergents containing low percentages of citric or acetic acid (10% max.)

3.3 General Precautions

For best results in cleaning HPL, it is important always as well to remember certain precautions:

- although very durable, the surface of HPL must still never be treated with products containing abrasive substances, abrasive sponges or unsuitable products media, such as sandpaper or steel wool.
- products with a high acid or very alkaline content should be avoided because they can stain the surface.
- when using solvents, the cloth used must be perfectly clean so as not to leave marks on the HPL surface. Any streaks can still be removed by rinsing with hot water and drying.
- avoid furniture polishes and wax based cleaners in general, because they tend to form a sticky layer on the dense HPL surface, to which the dirt adheres.

4 — PROCESSING

As a result of their composition, Arpa Solid panels can expand and contract just like hardwood. 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. Drill holes and joints must be dimensioned accordingly. Do not fix screws too tightly in order to allow the panels to move.

Conditioning

Arpa Solid panels should be conditioned prior to fabrication as well as installation to allow panels to reach equilibrium with their environment.

4.1 General processing guidelines

Machining panels should only be fabricated by a machining or construction professional with proper equipment. The homogeneous composition of the material makes it possible to machine both the sides and the surface.

Machining Arpa Solid panels is comparable to machining high quality hardwood. The hardness of the panels makes greater demands on tools than machining materials composed of softwood. The use of hard metal tools is advised. Diamond-tipped tools are recommended for volume components. This ensures a very good finish and a long tool life.

Health and safety

Please note that serious dangers are inherent with the use of (carpentry) machinery. In all cases, adhere strictly to the guidelines of the machinery manufacturers and the recommendations of the safety and labor organizations.

4.2 Sawing

The following general guidelines apply to sawing of Arpa Solid panels.

Feed: 7 - 22 m/min (≈ 23 - 72 ft/min).

Tooth: Alternate tooth or trapezoid flat tooth.

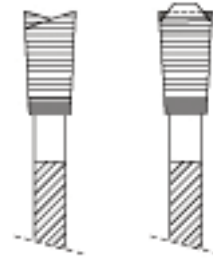
Positioning: Entering tooth always at the decorative side of the panel.

Cutting edges: 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. Use insert templates covered with rubber mats to prevent the panels from sliding if the machine does not have a moving worktop.



Saw-blade height setting



Alternate tooth

Trapezoid flat tooth

Stationary circular saw

Have the decorative side facing upwards when sawing, drilling and routing.

When a decorative side must be slid over the machine's worktop while machining, it is recommended to place a protective panel, for example of hardwood, on the worktop.

Diameter		Teeth	Number of revolutions	Saw blade thickness		Saw blade height setting	
mm	inch			mm	inch	mm	inch
300	~ 12	72	~ 6.000/min	3,4	~ 1/8	30	~ 1 1/4
350	~ 14	84	~ 5.000/min	4,0	~ 3/16	35	~ 1 3/8
400	~ 16	96	~ 4.000/min	4,8	~ 3/16	40	~ 1 5/8

Portable circular saw

When using a portable circular saw, the non-decorative side should be upwards.

Diameter		Teeth	Number of revolutions	Saw blade thickness		Saw blade height setting	
mm	inch			mm	inch	mm	inch
150	~ 6	36	~ 4.000/min	2,5	~ 1/8	15	~ 5/8
200	~ 8	46	~ 4.000/min	3,0	~ 1/8	20	~ 3/4

Jig saw

Jig saw: carbide-tipped, interior corners of cut-outs should be drilled first with 8 - 10 mm (\approx 5/16 - 3/8 in) hole diameter. Consider the use of a specific jig saw blade for decorative surfaces.

4.3 Drilling

The use of Carbide-tipped HSS-drill, top angle 60-80° is recommended. Arpa compact panels should be drilled with support sheets.



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

The exit speed of the drill must be carefully selected so that the melamine surfaces of the Solid Interior panels are not damaged. Shortly before the drill exits the work piece in full diameter, the feed rate must be reduced by 50%. When drilling through-holes, the counter-pressure should be built up using hardwood or equivalent material to prevent break-offs of the melamine surface.

4.4 Routing

Routing shapes:

- Straight and slanted bits for cutting edges and beveling;
- hollow or round ground bits for rounded edges;
- diamond groove-circular saw blades for grooves.

Material:

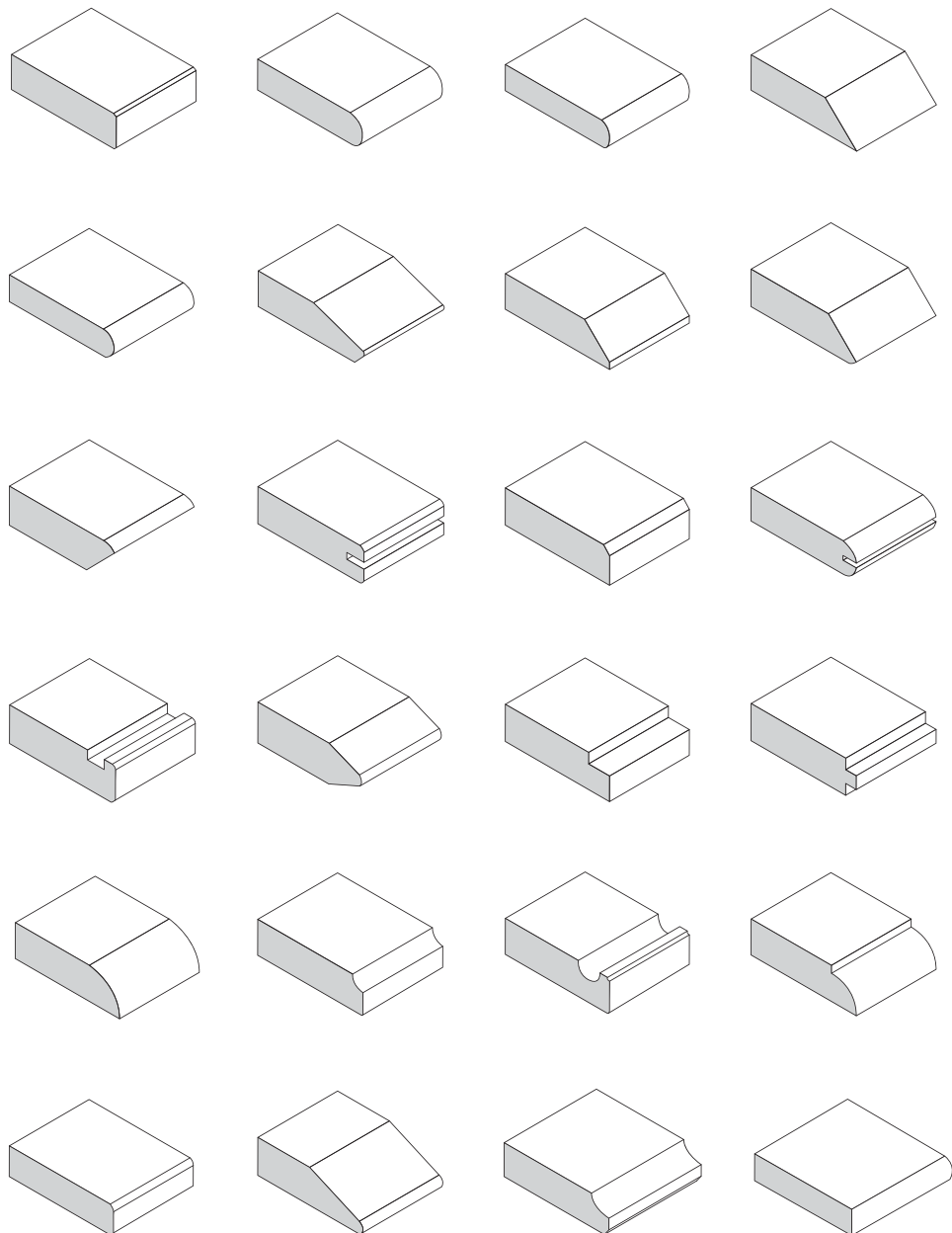
Cutters made of hard metal or diamond.

Manually operated routing cutter or spindle moulder:

Diameter		Number of revolutions	Speed		Feed	
mm	inch		m/s	ft/s	m/min	ft/min
20-25	~ 1	~ 18.000-24.000	20 - 30	~ 65-100	5	~ 16
125	~ 5	~ 6.000-9000	40 - 60	~ 130-200	5-15	~ 16 - 50

4.5 Edges

Edges should be safe, free from saw marks and jagged edges. For better appearance it is advised to polish edges. There are a large number of edge treatments for both functional and aesthetical consideration.



4.6 Glueing

Arpa Compact panels can be glued to each other and to many material with one or two part adhesives, e.g. epoxy or polyurethane adhesive systems.

Glueing is in many cases carried out together with a mechanical joint to provide sufficient pressure during drying.

Glue type	Application	Open time	Pressure	Pressure time
Epoxy	100-250g/m ²	depends on type	0,2 N/mm ²	4-8 hours at 20°C
Polyurethane	100-250g/m ²	depends on type	0,2 N/mm ²	4-8 hours at 20°C

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

- Make sure panels and strips have the same “grain direction”.
- Pre-condition panels, strips and adhesive in the same way (temperature and humidity preferably the same as the future conditions of use).
- Remove grease from surfaces to be glued, slightly roughen them and ensure they are dust-free.
- Observe strictly the instructions provided by the adhesive supplier.

5 — INSTALLATION GUIDELINES SOLID STANDARD*

5.1 Wall cladding

Different methods can be used for fixing Arpa Solid panels from 6 mm thickness upwards. The drawings in this document illustrate the principles of the fixing systems but do not indicate particular brands. Please check availability in your country.

5.1.1 General installation guidelines

Arpa Solid panels can be used as a so-called suspended cladding element.

This means that the material is assembled on a supporting sub frame. The panel can be fixed visibly or invisibly.

It is important when determining the sub frame to take account of the following points:

- The load-bearing requirements.
- Maximum fixing distances for the panels.
- The necessary ventilation or moisture regulating provisions.
- The unrestricted ability of the panels to move.
- The available panel sizes.
- The thickness of any insulating layer.
- The anchoring options in the building (wall) construction.
- Legal requirements.

Ventilation

Arpa Compact panels can be installed in front of a rear wall construction.

The systems described are suitable for finishing various types of wall construction, from gypsum board walls to prefabricated concrete systems.

The system types must be either fully back-ventilated wall lining systems or a semi-sealed wall lining system, which can be used in clean areas such as operating theatres, pharmacies and high-tech production facilities.

A fully back-ventilated wall lining system comprises:

- open floor and ceiling connections;
- horizontal or vertical profiles mounted to provide spacing.

A semi-sealed wall lining system comprises:

- an interconnected open space between the rear wall and the space above the (system) ceiling;
- horizontal profiles, mounted to provide spacing;
- closed joints and sealed connections to floor and ceiling

In the case of damp sub frames such as new masonry, new plasterwork, damp walls made of concrete, etc., extra ventilation must be provided until the relative moisture on both sides of the construction is equal.

Corner solutions

When joining 2 panels in a corner it is important to take account of the movement of the panel. To avoid tension in the joint it is advisable to keep the leg length of the corner element as small as possible (max 400 mm).

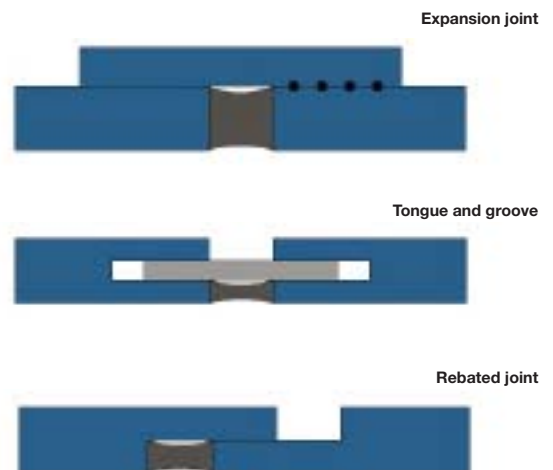
Compact panels can be joined together in corners in various ways:

- Glued aluminum or plastic corner profile.
- Glued aluminum or plastic tongue.
- Tongue and groove joint with support.

Joints and connections

Solutions for vertical joints include:

- Expansion joint.
- Tongue-and-groove.
- Rebated joint.



In view of possible changes in size as a result of moisture and temperature changes, joints should be left free both for vertical and horizontal connections in such a way that the panel material can move by 2.5 mm/m¹ maximum. Thanks to the excellent workability of the material, it is possible to precisely seal vertical and horizontal joints without auxiliary profiles. For panel thicknesses from 8 mm upwards it is possible to make joints in the form of rebated joint connections or as tongue and groove connections.

*valid also for NO DECOR SOLID

Horizontal joints

Either tongue and groove connections or rebated joint connections can be used for horizontal joints. The joint must be made in such a way that the panels can move by 2.5 mm/m¹ maximum. The recess in the rebated joint must measure at least 2 x the joint width.

Vertical joints

The tongue and groove connection can be used for vertical joints. The panel thickness left on each side of the groove must be at least 2.9 mm. If an aluminium groove is used, a panel thickness of 8 mm is sufficient.

Joint sealing using mastic

When Arpa Solid panels are used for interior applications where high standards of hygiene and disinfection are required, wall constructions with airtight seals are often chosen. The joints are then sealed with an elastic mastic. This sealing material must be mould repellent (ISO 846) and resistant to disinfectants, if it is used in the aforementioned applications. What's more it is necessary for the adhesion between the sealing material and the panel to withstand draughts, damp, dust and dirt. It is recommended to use Arpa Compact panels in combination with silicone mastic or polyurethane.

Important guidelines for applying elastic sealing material:

- The joint must be absolutely clean, dry and free of grease.
- If necessary, a primer must be used to facilitate adhesion.
- The sealing material must on no account adhere to the reverse side (adhesion on three sides) because this can cause cracking. It is advisable to use a separating film or polyethylene tongue.
- To ensure that the sealing material is not under excessive strain, the joint must be sufficiently wide and the depth of the joint should not be greater than the width of the joint.

5.1.2 Visible fixing with screws or rivets

Arpa Solid panels may be fixed to a timber sub-frame structure using fast fix screws or they may be fixed to a metal sub-frame structure using aluminum rivets.

The sub-frame structure must be assembled in such a way that the area behind the panel can be ventilated in order to provide similar temperature and humidity on both sides of the panel.

When fixing panels with screws or rivets it is important to ensure that panels can move freely and evenly. The diameter of all pre-drilled holes in the panels must be 8 mm when using fastfix screws that have a diameter of 4 mm. When using aluminum rivets that have a diameter of 5 mm, one hole - centrally positioned in the panel - must be pre-drilled with a diameter of 5,1 mm and all other holes must be pre-drilled with a diameter of 10 mm.

A special nosepiece must be used on the riveting tool that keeps the head of the rivet 0,3 mm free from the surface of the panels.

All joints must be at least 8 mm wide.

Panel thickness: from 6 mm upward.
(For efficiency and performance reasons, a minimum thickness of 8 mm is recommended).

Fixing and edge distances

a = horizontal and vertical fixing distance (see table)

b = edge fixing clearance.

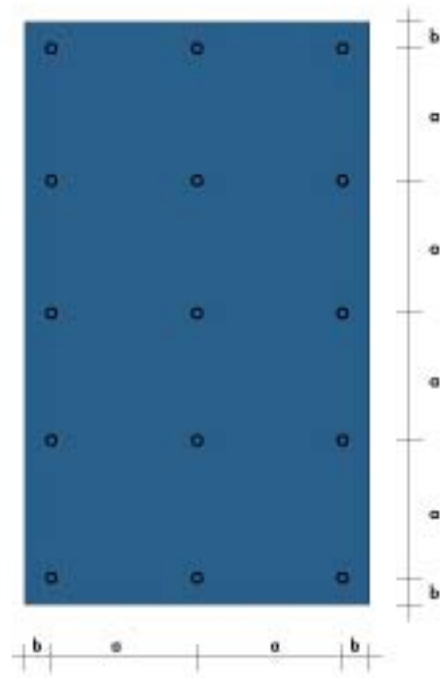
Minimum 20 mm.

Maximum 10 x panel thickness.

Recommended maximum panel height: 3050 mm

Recommended maximum fixing centres (mm)	Panel thickness (mm)		
	6	8	10
2 fixing in one direction	450	600	750
3 or more fixings in one direction	550	750	900

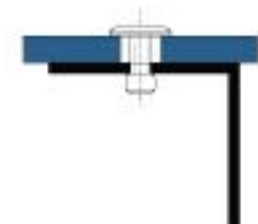
Note: Fixing distances for soffit application must be multiplied by 0.75.



Visible fixing with screws on timber subframe



Visible fixing with rivets on metal subframe



5.1.3 Invisible fixing with aluminium rails and brackets

Arpa Solid panels can be fixed invisibly using aluminium rails and brackets. The brackets are attached to the panels with thread-cutting screws or inserts.

Pre-drilled holes must be made in such a way that a residual thickness of at least 2 mm remains on the visible side of the panel.

The sub-frame structure must be assembled in such a way that the area behind the panel can be ventilated to provide similar temperature and humidity on both sides of the panel.

All joints must be at least 8 mm wide.

Panel thickness: minimum 10 mm

Fixing distances and edge clearances

a = horizontal and vertical fixing distance (see table)

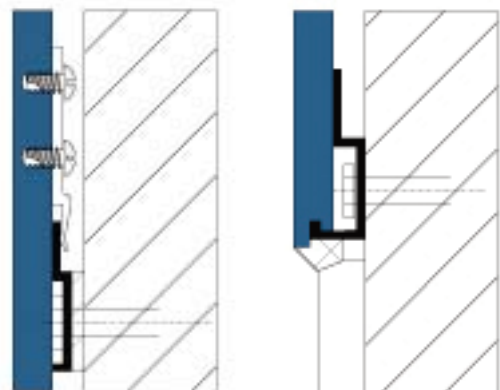
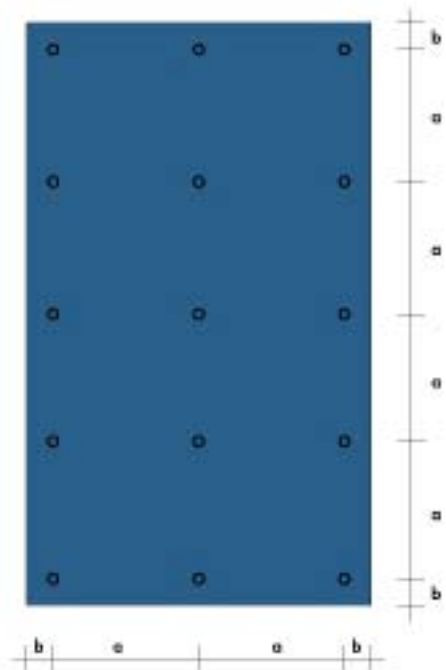
b = edge fixing clearance

Minimum 20 mm

Maximum 10 x panel thickness

Maximum horizontal fixing distances

Maximum fixing centres (mm)	Panel thickness (mm)	
	10	13
2 fixing in one direction	750	950
3 or more fixings in one direction	900	1200



5.1.4 Invisible fixing with adhesive

Arpa Solid panels can be fixed onto a timber or metal sub-frame structure using special adhesive systems that enable dimensional change of wall lining and sub frame. The guidelines of qualified glue manufacturers must be followed in order to achieve high-quality connections. Arpa is not responsible for the selection or use of adhesives in fixing systems.

The sub-frame structure must be assembled in such a way that the area behind the panel can be ventilated so as to provide similar temperature and humidity on both sides of the panel. The adhesive beads must be applied only in a vertical direction and always in full height of the panel.

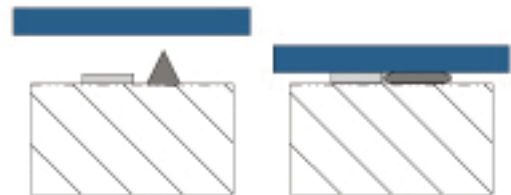
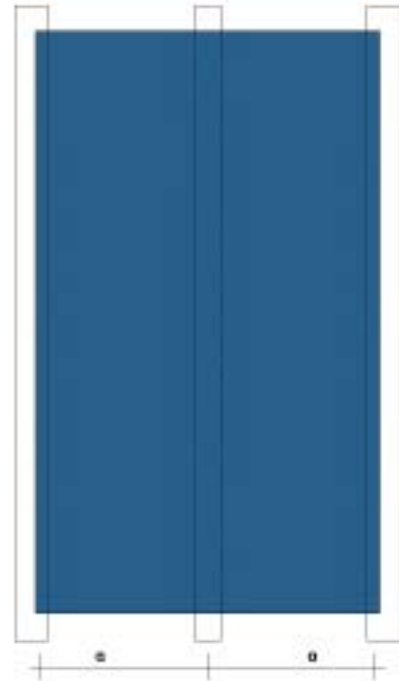
All joints must be at least 8 mm wide.

The maximum installation size of the panel is 3050 mm x 1300 mm.

For efficiency and performance reasons thickness smaller than 8 mm are not recommended.

Maximum horizontal fixing distances (a)

Maximum fixing centres (mm)	Panel thickness (mm)	
	8	10
2 fixing in one direction	600	650
3 or more fixings in one direction	650	650



Adhesive system including double sided tape for temporary fastening while the adhesive cures

5.2 Cubicles and partitions

Arpa Solid panels (CGS) are suitable for use in sanitary units. The easy processing and fixing of the panels mean that there is wide scope for different designs, uses and applications. Due to the high rigidity and impact resistance of the panel material, it is possible to work with relatively small thicknesses (10 to 16 mm).

For efficiency and performance reasons, it is recommended to use a minimum thickness of 12 mm for cubicles. Height of doors must be cut from length and not from width of panel. Doors must be hung with a minimum of 3 hinges.

General recommendations

The temperature and humidity acting on the front and rear sides should not differ over a long period of time.

In wet areas, where panels will be exposed to prolonged humidity, spaces should 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/m.

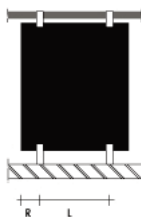
Do not fix screws too tightly in order to allow the panels to move.

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. The quality of the fixing elements must be adapted for use in wet or damp areas.

Maximum fixing intervals

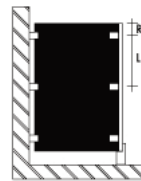
A) On the top and bottom sides of supported panels



R = maximum distance from the edge R 150 mm.
Maximum panel height (mm) = 1850 mm

Panel thickness (mm)	Maximum fixing distances L (mm)	
	2 supports	3 or more supports
10	600	700
12	700	800
13/14	800	900
16	900	1000

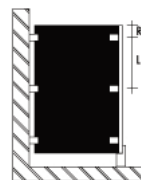
B) Panels support on both vertical sides



R = maximum distance from the edge R 150 mm.
Maximum panel height (mm) = 1850 mm

Panel thickness (mm)	Maximum fixing distances L (mm)	
	2 supports	3 or more supports
10	600	700
12	700	800
13/14	800	900
16	900	1000

C) Panels supported on one vertical side



Maximum distance from the edge R 100 mm for 10 to 12 mm panels.
- Maximum distance from the edge R 150 mm for 13 to 16 mm panels.

Panel thickness (mm)	Panel width (mm)	Maximum fixing distances L	
		2 supports	3 or more supports
10 mm	< 300	400	500
13/14 mm	< 400	500	600
16 mm	< 450	550	650

5.3 Horizontal Worktops

Arpa Compact Interior panels are often used as worktops or table tops

Thickness

Minimum thickness: 10 mm.

Panel thickness and fixing distances as well as expected load platforms, are directly linked and must be calculated correspondingly.

Fixing

Fix with inserts or thread cutting screws. Maximum drill hole depth equals panel thickness minus 3 mm.

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

Drill holes in the support construction must allow the panels to move: fit slotted holes or allow diameter of the drill holes equals screw diameter plus 3 mm. 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 aluminum 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.

6 — SOLID CORE / UNICOLOR / MULTICOR STANDARD / MULTICOLOR EVOLUTION SPECIFIC INSTALLATION GUIDELINES

Arpa colored core compact laminates (Solid Core, Unicolor, Multicolor Standard, Multicolor Evolution) are high quality surfacing material with colored core. Although most of the equipment and techniques used in the fabrication of normal laminates will apply, some additional techniques may be necessary to utilize the full potential of the product.

Handling and storage

Due to their composition, Solidcore and Unicolor are slightly more brittle than other Arpa compact panels and therefore should be handled with care.

They should always be stored horizontally. Vertical storage is not recommended because of the risk of edge damage.

Edges and corners are more vulnerable to impact damage.

Storage conditions (see chapter 2) should be the same as those recommended for normal compact laminates.

Machining

All conventional tools and machines used for Arpa compact panels can be used for fabricating Solidcore/Unicolor/Multicolor and all general recommendations relating to processing should be followed (see chapter 4)

Cutting

Use the same standard tools and equipment as used for other Arpa compact products (see chapter 4).

Cutters and saws must be kept sharp to avoid chipping. Because of the slightly more brittle nature of the Arpa colored core panels (Solidcore/Unicolor), to avoid chipping on the underside when cutting on circular saws, precautions should be taken such as: lowering the saw in the saw bench; reducing the throat of the saw by placing a piece of hardboard under the cut; changing the saw blade for one with negative angle teeth; or simply allowing an extra amount for edge trimming.

Large sheets may be cut by scoring but extra care must be taken to prevent shattering.

Glueing

The use of non-pigmented or transparent drying adhesives are recommended to achieve a visually satisfactory end result.

Assembly

To obtain a good result for joining 2 pieces of Solidcore/Unicolor, it is advisable to use a mechanical fixing.

7 — NATURALIA SPECIFIC INSTALLATION GUIDELINES

Naturalia can be worked easily with a range of woodworking tools and can be cut to many shapes or angles, providing the versatility and workability needed for the free expression of ideas.

Handling and storage

All general recommendations relating to handling and storage of Arpa compact panels should be followed (see chapter 2).

Machining

The machining of Naturalia is comparable to machining high quality hardwood. All conventional tools and machines used for Arpa Solid panels and all general recommendations relating to fabrication should be followed (see chapter 4)

Glueing

The use of non-pigmented or transparent drying adhesives is recommended to achieve a visually satisfactory end result.

Disclaimer

The disclaimer that follows is a summary of the applicable full disclaimer (which can be found on arpaindustriale.com). The information provided by Arpa Industriale S.p.A. ("Arpa") in this document is solely indicative. Arpa is unable to warrant the accuracy and completeness of this information. No rights can be derived from the information provided; the use of the information is at the other party's risk and responsibility. This document does not guarantee any properties of Arpa's products. Arpa does not warrant that the information in this document is suitable for the purpose for which it is consulted by the other party. The document does not contain any design, structural calculation, estimate or other warranty or representation that customers and third parties may rely on. Colours used in Arpa's communications (including but not limited to printed matter) and in samples of Arpa's products may differ from the colours of the Arpa's products to be supplied. Arpa's products and samples are produced within the specified colour tolerances and the colours (of production batches) may differ, even if the same colour is used. The viewing angle also influences the colour perception. Customers and third parties must have a professional adviser inform them about (the suitability of) the Arpa's products for all desired applications and about applicable laws and regulations. Arpa reserves the right to change (the specifications for) its products without prior notice. To the maximum extent permitted under the applicable law, Arpa is not liable (neither contractual nor non-contractual) for any damage arising from or related to the use of this document, except if and to the extent that such damage is the result of wilful misconduct or gross negligence on the part of Arpa and/or its management. All oral and written statements, offers, quotations, sales, supplies, deliveries and/or agreements and all related activities of Arpa are governed by the General Terms and Conditions of Arpa Industriale S.p.A. All oral and written statements, offers, quotations, sales, supplies, deliveries and/or agreements and all related work of Arpa USA, Inc. ("Arpa USA") are governed by the Arpa USA General Terms and Conditions of Sale. All intellectual property rights and other rights regarding the content of this document (including logos, text and photographs) are owned by Arpa and/or its licensors.

Arpa Industriale S.p.A.

Via Piumati, 91
12042 Bra (CN) - Italy
Tel. +39 0172 436111
Fax +39 0172 431151
E-mail: arpa@arpaindustriale.com
export@arpaindustriale.com

Filiale di Lissone

Via B. Cellini, 29
20035 Lissone (MB) - Italy
Tel. +39 039 795525
Fax +39 039 2782484
E-mail: lissone@arpaindustriale.com

Filiale di Padova

Via Cesare Battisti, 13
35010 Limena (PD) - Italy
Tel. +39 049 8848105
Fax +39 049 8848004
E-mail: padova@arpaindustriale.com

Filiale di Pesaro

Via dell'Industria, 8/10
Loc. Chiusa di Ginestreto
61100 Pesaro (PU) - Italy
Tel. +39 0721 482295/482012
Fax +39 0721 482292
E-mail: pesaro@arpaindustriale.com

Arpa France S.A.R.L.

50, Impasse de la Balme
69805 SAINT PRIEST - CEDEX - France
Tel. +33 (0)4 78 90 00 23
Fax +33 (0)4 78 90 64 66
E-mail: arpafrance@arpaindustriale.com

Arpa Germany

E-mail: arpadeutschland@arpaindustriale.com

Arpa Industriale Iberica S.L.U.

Calle Ribera, 5
08003 Barcelona - Spain
Tel. +34 932 687 061
Fax +34 931 163 300
E-mail: arpaiberica@arpaindustriale.com

Arpa Nederland B.V.

Nieuw Mathenesserstraat 69
3113 AE SCHIEDAM - The Netherlands
Tel. +31 (0)10 2857315
Fax +31 (0)10 2857331
E-mail: arpanl@arpaindustriale.com

Arpa UK Ltd

Block 3, Parkhall Business Village,
Park Hall Road, Longton
Stoke-On-Trent ST3 5XA - Great Britain
Tel. +44 (0)1782 332 368
Fax +44 (0)1782 331876
E-mail: arpauk@arpaindustriale.com

Arpa USA

62, Greene Street
NEW YORK, NY 10012 - USA
Tel. +1 212 334 6888
Fax +1 866 249 9542
E-mail: arpausa@arpaindustriale.com