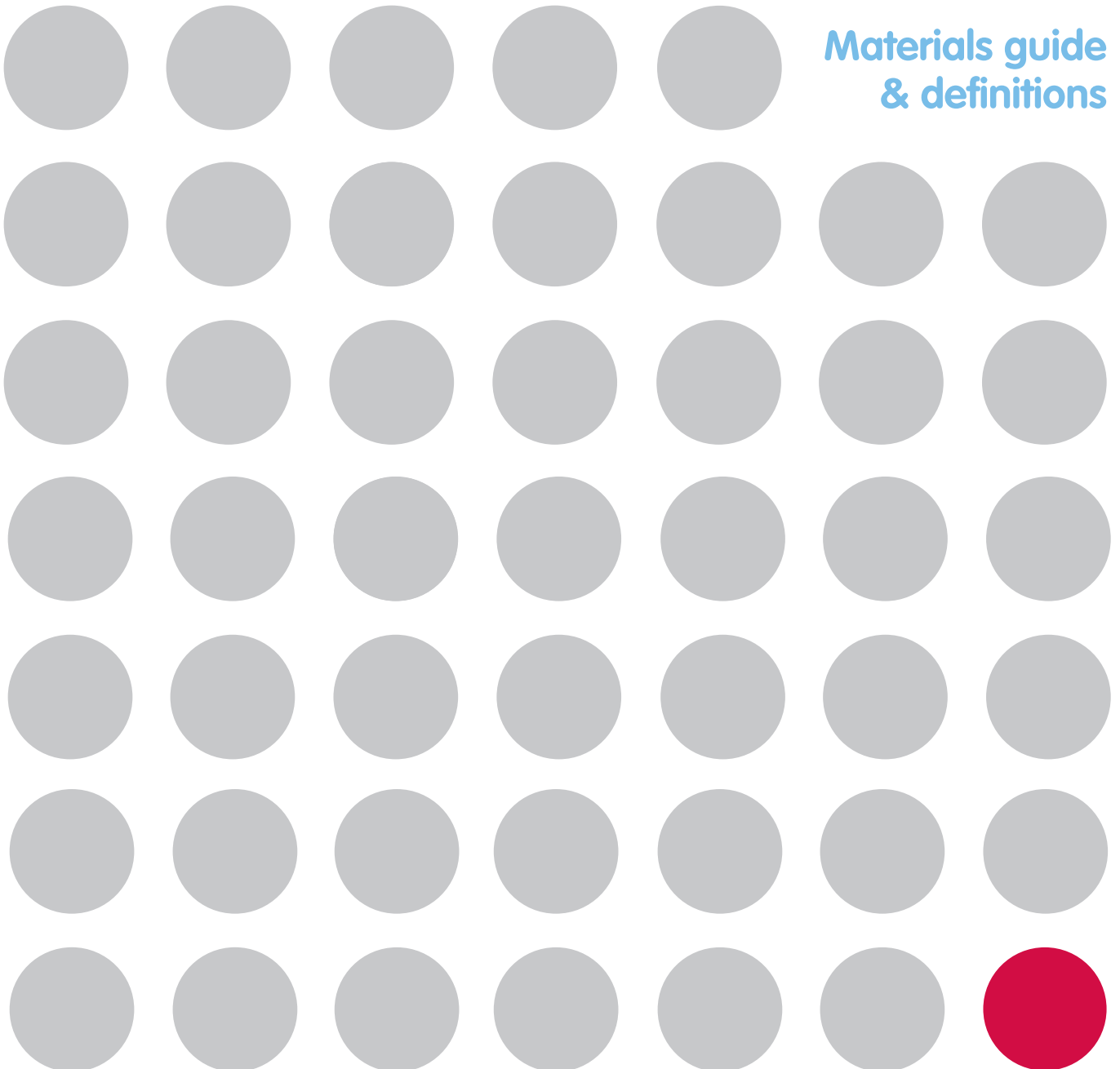




Amwell

Washrooms from concept to completion

Materials guide & definitions



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Materials guide & definitions for melamine faced chipboard

What is MFC?

Melamine Faced Chipboard is a low cost alternative to HPL, and is suitable for low traffic dry areas.

Construction (19mm MFC)

- A decorative melamine foil is pre-bonded under pressure to both sides of a moisture resistant chipboard core.
- Like SGL melamine faced chipboard is self supporting and does not require any additional support.

Why use MFC?

MFC offers a cheaper alternative to High Pressure Laminate suitable for use where the intended environment is both dry and unlikely to be subject to abuse.

Benefits

- Self supporting double sided board.
- Cut panels can be lipped in matching or contrasting PVC for a durable, impact resistance edge detail.
- Hygienic and easy to clean.

Colours

30 colours are all readily available and include 4 woodgrain effects. These can all be mixed and matched alongside other materials and background textures using the [Colour tool on our website](#).



Materials guide & definitions for high pressure laminate

What is HPL?

High Pressure Laminate can be referred to in different ways, most commonly :- laminate, plastic laminate or plastic veneer.

Construction (19mm MFC)

- Approx 6 sheets of phenolic resin impregnated Kraft paper are pressed together under heat & pressure.
- The top layer is a decorative melamine which gives the sheet its pattern & colour.
- Intense pressure and heat causes all the layers to fuse together, setting to form a thin impact resistant sheet material.

Why use HPL?

Unlike MFC or solid grade laminate, which is self supporting, HPL needs to be bonded to a suitable substrate such as moisture resistant chipboard, to maintain structural stability.

The resulting 'sandwich' of HPL-chipboard-HPL is then lipped in matching or contrasting PVC for a durable, impact resistant edge detail.

Benefits

- The sandwich / composite board structure facilitates a wide range of colours and manufacturing possibilities, including radiused and fully bullnosed edges.
- The substrate thickness can be varied according to the intended usage - i.e. 44mm door sets, or 20mm duct panels.
- Once bonded to suitable substrate, HPL offers excellent resistance to impact damage.
- Hygienic and easy to clean.

Colours

30 colours are all readily available and include 4 woodgrain. These can all be mixed and matched alongside other materials and background textures using the [Colour tool on our website](#).



Materials guide & definitions for solid grade laminate

What is SGL?

Solid grade laminate (SGL) is referred to in many ways: - compact, compact grade laminate or solid phenolic laminate.

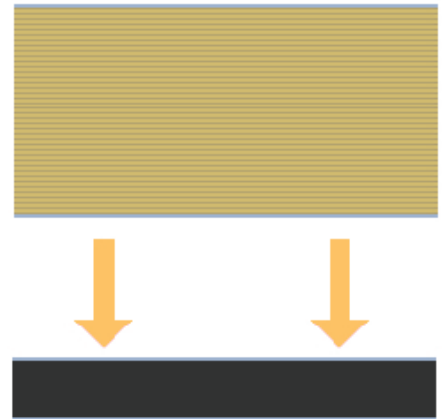
Construction (13mm or 20mm SGL)

- About 70 sheets of Kraft paper are bonded together under pressure with phenolic resin.
- The top and bottom layers are a decorative melamine which form the end pattern & colour of the sheet.
- Intense pressure and heat causes all the layers to fuse together, and once the resin has set, forms a solid, waterproof and highly resilient material.

- Its robustness means long product life making it very cost effective over time.
- No substrate means no need for independent edging that could come off.
- Hygienic and easy to clean.

Colours

A large selection of 30 colours are readily available for 13mm SGL. However, for 20mm is a more limited colour option. The colours can be mixed and matched alongside other materials using the [Colour tool on our website](#).



Why use SGL?

Unlike High Pressure Laminate which requires a substrate such as chipboard or plywood to give structural support, SGL is a self supporting material with excellence impact resistance.

Benefits

- Being waterproof SGL is ideal for changing rooms and other wet areas.

Materials guide & definitions for toughened glass and coating process

Toughened glass (also known as tempered or safety glass) is made from float (annealed) glass via a thermal tempering process.

Float glass is cut to the required size and any required processing, such as polishing the edges or drilling holes in the glass, must be carried out before the toughening process starts.

The glass is then placed onto a roller table, taking it through a furnace which heats it to above its annealing point of 600 °C. It is then rapidly cooled with forced draughts of air below its annealing point. This causes the outer portion to harden and contract, while the inner portion remains free to flow for a short time. The final contraction of the inner layer induces compressive stresses in the surface of the glass balanced by tensile stresses in the body of the glass.

Toughened glass is typically assumed to be six times the strength of float glass. This is because any surface flaws tend to be pressed closed by the retained compressive forces, while the core layer remains relatively free of the defects which could cause a crack to begin.

Toughened glass is considered a safety glass due to its increased strength and its tendency to shatter in small, rounded pieces which are less likely to cause injury.

For more information about glass in general visit [The British Glass website](#).

Silk screen printing is the process by which coloured or enameled, translucent patterns can be mechanically transferred to the glass surface prior to toughening.

The paint is effectively placed on the glass by first forming a screen made up of a very tight mesh with either the holes open or blocked. The paint is then forced through these holes onto the glass in a controlled manner.

The resulting colours/ patterns are fired into the glass during the toughening process which makes for an extremely durable hardwearing product which is maintained over the life of the glass.

Silk screen printing can be offered in degrees of opacity to closely match an acid etch effect, with the advantage that unlike actual acid etching, screen printing does not show greasy marks such as finger prints and is more easily cleaned.

Materials guide & definitions for real wood veneers

Real wood veneers are obtained by slicing through the 'trunk' of trees. The different appearance of the grain, or "figure," in the veneer depends upon the method that the wood is sliced.

Crown cut

Veneer Leaves are produced by slicing straight across, parallel to a line through the centre of the log, at a tangent to the growth rings. This produces a veneer with a strong central fugurative grain and a more linear effect toward the edges.



Crown cut

Quarter cut/straight grain

The log is first cut into quarters and each quarter log / flitch is straight sliced at right angles to the annular growth rings. This produces a veneer with a relatively uniform linear vertical grain.

The cut veneers are then bonded to a suitable substrate such as moisture resistant chipboard, which can be edged in either the same veneer of matching hardwood.

To complete the finished product the veneered boards are factory finished in a 2 part AC lacquer to form a protective hard polish.



Quarter cut/straight grain

Materials guide & definitions for stainless steel

Stainless steel

is a type of steel that stains 'less' and resists rust due to the addition of a minimum 12% chromium.

The chromium in the steel combines with oxygen in the atmosphere to form a thin, invisible layer of chrome-containing oxide, called the passive film. The sizes of chromium atoms and their oxides are similar, so they pack neatly together on the surface of the metal, forming a stable layer only a few atoms thick. It is this film that protects the steel from staining & rusting.

If the metal is cut or scratched and the passive film is disrupted, more oxide will quickly form on the exposed surface, protecting it from oxidative corrosion. (Iron, on the other hand, rusts quickly because atomic iron is much smaller than its oxide, so the oxide forms a loose rather than tightly packed layer and flakes away.) There are three main types of stainless steels – austenitic, ferritic, and martensitic. The most commonly used in internal architectural metalwork being Austenitic Type 304, frequently referred to as T304, or just 304.

For more information about stainless steel in general visit The British Stainless steel Association.

Optisheen®

is the ultimate polished finish for stainless steel. When it matters to keep surfaces sparkling, spotless and germ free, the unique surface of Optisheen cleans cleaner and cleans more easily than any other 'polished' stainless steel.

What differentiates Optisheen is that it is a true polished finish.

Most other 'polished' finishes are actually a ground finish produced by grinding the dry surface of the sheet with an abrasive belt. Optisheen uses a 'wet cut' process with specially formulated polishing compounds. There is no direct contact between metal and polishing belt and as a result Optisheen has long, shallow, non directional graining with a lower grain aspect ratio.

Materials guide & definitions for polyester powder coating

Polyester powder coating uses very fine dry particles of resin with the pigment color of your choice. The resin powder is applied with a spray gun similar in concept to applying solvent based paint. The difference is this spray gun and its resin contents are electrostatically charged. When the resin powder is sprayed onto a part it sticks to the metal because it's grounded, attracting charged resin powder like a magnet.

The charged powder adheres to the metal then melted by baking at 400F degrees in special industrial sized ovens. The melted resin fuses to the metal, providing a uniform, thick and durable finish. The result is a beautiful glossy finish that is very resistant to

chemicals, wear and chipping, 3times stronger than solvent based paints. Powder coating simply provides a quality finish that can be seen and felt for years.

A coated components life span is determined significantly by the method used to prepare it prior to coating. It is therefore imperative that in order to produce a lasting coating that the chosen substrate is pre-treated correctly. Short cuts in pre-treatment will drastically effect the longevity of the final coating finish.

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