

ARPA LAMINATES

HIGH QUALITY HIGH PRESSURE LAMINATES

CHARACTERISTICS

The high pressure laminates designed by Arpa Industriale have all the style of made in Italy product. They combine excellent aesthetic quality with properties and virtues of interest to those who conceive or create interior design solutions, starting from ductility and strength. Arpa's HPL is a material that is both easy to work with and extremely strong: resistant to scratches, impact, abrasion, chemical substances, and heat. These characteristics make it ideal for a wide range of applications. To ensure additional properties: an Arpa laminate can be, in fact, antibacterial and fireproof, therefore especially suitable for applications in public places or in cases in which a high degree of hygiene is particularly important, from kitchens, to laboratories where analyses are carried out, to means of transportation, to hospitals.



Impact resistant

Is able to withstand impacts with blunt objects without damage



Scratch, wear and tear resistant

Its density makes it resistant to scratches and wear



Light fastness

Does not suffer damage from UV rays and is not subject to discoloration



Easy to clean

Its smooth surface does not allow dirt to stick



Heat resistant

Temperatures changes do not affect its properties



Hygienic

The non-porous surface makes it hygienic and easy to clean



Suitable for contact with food

Being hygienic and heat resistant, it is suitable for contact with food

HIGH-QUALITY LAMINATES. MADE IN ITALY

THE PRODUCTION PROCESS

Behind the apparent simplicity of high-pressure laminates lies a highly-evolved technology requiring powerful production facilities as well as a sizable investment in research and development. HPL production cycle is regulated by European legislation EN 438 and ISO 4586, which establish requirements and production standards. In Arpa, quality controls occur at every stage of the process: from impregnation, to semi-finished product, to thermo-lamination, up to the testing and classification of the finished product.



Paper storage

Storage of the decorative and kraft paper. Decor: coloured or decorated paper layer which confers the HPL its aesthetic properties. Kraft: generally brown raw paper with exceptional resilience and resistance features that will build up the core of the high pressure laminates. Quality control of raw materials inbound.



Production of resins

Production of thermosetting resins according to Arpa's recipe. The resins will be later used to impregnate the decorative and kraft papers that create the HPL sheet. They can be phenolic (for the kraft paper substrate) or melaminic (for the decorative paper). Quality control of raw materials and finished thermosetting resins.



Impregnation

In the HPL production process, the impregnation is the operation of preparation of the kraft and decorative papers. They are first soaked (impregnated) in thermosetting resins, then dried. The paper so prepared will give origin to the HPL sheet during the thermo-lamination process. Quality control of the semi-finished products.



Impregnated paper storage

The impregnated kraft and decor paper is stored in appropriated and controlled environment rooms.



Assembly

In the HPL production cycle, the assembly is the act of overlapping the different kraft, decor and overlay sheets. Then they are ready to be carried in a press for the thermo-lamination.



High Pressure Lamination

The thermal lamination is the irreversible process which gives origin to the HPL: the impregnated sheets of decorative and kraft paper undergo a simultaneous pressing and heating process at high levels of heat and pressure.

The process provides the flowing of the thermosetting resins through the paper fibers and subsequent its curing to obtain a homogenous non-porous material (> 1.35 g/cm³) with the required surface finish.

Multi-daylight Press:

- Temperature 140°/150° C
- Pressure > 7 MPa
- Press Cycle 40/50 minutes



Trimming and sanding

In the production of the laminate, trimming is the phase in which the edges of the panel are refined. Finally, the back-side of the panel is lightly sanded to make it suitable for gluing to substrates.



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Packaging and shipment

Packaging and transportation are carried out in accordance with Arpa General Processing Recommendations. For transportation, HPL is classified as a non-hazardous product.

The resins are irreversibly interreacted through cross linked chemical bonds formed during the curing process producing a non-reactive, stable material with characteristics which are totally different from those of its component parts. Quality control at the end of the production process.