

Innovation meets technology

Vetroresina SPA has produced glass fibre reinforced polyester laminates since 1968. The Italian company, with production plants in the USA and Brazil, offers a wide range of laminates in standard versions ideal for use on recreational vehicles, but has also developed over the years several exclusive technologies that increasingly attract more interest on the part of the builders all over the world. With some of the solutions, in fact, it is possible to abandon the use of plywood for floors and sidewalls. In this way the problem related to wood's reaction to water and humidity are eliminated and the duration of the panel over time is increased, the joints are eliminated and the mounting is easier



Vetrostyle and Vetrostyle PVC: the future is already present

Vetrostyle was developed 5 years ago in order to respond to the requests of several companies that wanted to substitute plywood in the internal walls. The fibreglass laminate is clad, instead of with a gel coat, with decorative paper chosen by the builder. It involves a special process that constitutes the soaking of the paper not with paints and water glues, but rather with liquid resin that results in a sealed and weatherproof surface. Vetroresina SPA supplies a roll of 60 meters that then is cut into the correct size. From a mechanical point of view the principle quality of this application is that there are no joints.

"Already the plywood in itself is very resistant, but in correspondence with the joint it is particularly weak - says Simone Colombarini, CEO of Vetroresina SPA - We have carried out numerous tests that demonstrate that thanks to Vetrostyle, which contains no joint, we achieve a state of higher resistance of the panel. What is more, with the use of this product we can save time in the assembly phase". Other than being weatherproof, Vetrostyle offers a higher resistance to scratches, does not absorb odours, is

resistant to chemical agents, has a scarce electrical conductivity and is easy to clean. With an ideal choice of glass support it is possible to also obtain a reduction in weight. It is available in the widths of 1.0 mm all the way to 4.0 mm with weight that spans from 1.4 to 4 kg/ square meter. Much more recent is the birth of Vetrostyle PVC that proposes a solution of coupling between fibreglass and PVC for the interior of the floors of motorhomes and caravans.

"This year there was an incredible demand for fibreglass for the covering of floors - says Simone Colombarini - It is a tendency that had already begun several years ago when many builders began to substitute the black plywood on the external side of the floor with a laminate in fibreglass. Here the advantage is evident if one thinks, most of all, about the weatherproofing of the fibreglass. We were then asked to research a solution as well for the internal parts of the floor. At the exposition in Düsseldorf in 2011 we presented for the first time Vetrostyle PVC and already in 2012 the company, Hymer, began to apply this technology. Now for the 2014 collections many motorhome builders have requested a sampling".

Vetrostyle PVC was created thanks to a spe-

cial process put forth by the Italian company that is able to match the PVC to the fibreglass during the final phases of working of the laminate; thereby obtaining as sheet with the total width of 3 mm that is provided already in specific dimensions of the pavement where it is destined to go. The advantages are multiple. First of all there is no risk of absorption of water, it does not dent, it is more resistant than plywood and allows the skipping of the process of attaching of the PVC to the coating.

"We have numerous clients who have ordered our new product - says Simone Colombarini - but also many who, simply substitute the plywood of the pavement with a fibreglass laminate and then glue above the PVC. We have invested in and believe in

this solution that can become, for its added value whether in the construction phases or in the phases of use, a building standard of the next years".

Vetrolite: from the United States to Europe

"When we consider the US market, we consider first and foremost the needs of the American builders. Here the standards are less restrictive than in Europe in terms of weight, although they have more security requirements. The sidewalls are built with sandwich panels composed of a fibreglass laminate with a width of 1.2 - 1.5 mm, a plate of plywood and isolating materials - says Simone Colombarini - We then tried to resolve a common problem for all: eliminating the plywood which, as it absorbs water, unglues and rots. In this way we invented and Vetrolite patent".

Vetrolite is a large width fibreglass resin that allows the elimination of the plywood on the external walls without compromising the criteria of sturdiness that is demanded on the American market. Naturally the challenge that Vetroresina SPA found itself facing regarded weight. The solution has arrived thanks to the addition of a very light plastic micro balls that allows the expansion of the width, providing more rigidity to the product without creating more weight. As a result the laminates Vetrolite were created with the width of 3.8 mm that American builders began to use by gluing them to the walls of the motorhome without having to rely on the use of plywood anymore.

"For many years we have supplied Vetrolite in the USA until in 2008 we decided to build a factory in South Carolina in order to directly produce these special laminates in the US - concludes the company administrator - Unfortunately in those years the motorhome market fell almost 80% and we found ourselves displaced because Vetrolite did not have appeal in the caravan and motorhome sector: it was too costly and with an application that was too complex to be able to sub-



stitute it with traditional methods. In this way we had to re-examine a market for the caravan and motorhome sector, but the production of Vetrolite is active, and is used in the production of motorhomes".

Vetrolite is also used by several European builders in the version with a width of 2.2 mm. This difference of width compared to the classic laminate of 1.5 mm is given in part by a higher quantity of resin, but most of all from the presence of the micro spheres. Vetroresina SPA has obtained the patent for the low-density technology that allows it to obtain products with a very ample range of widths, starting with 1.3 mm. In Vetrolite Low Density, in fact, the technology of the microspheres is no longer applied to the fibre of the glass, but rather to the resin, allowing a better flexibility in the creation of laminates of different widths.



Company Profile

Begun in 1968, Vetroresina produces laminates in reinforced polyester resin with glass fibre. The large operative capacity of the company is the result of careful research carried out in the sector of plywood materials associated with the study and continuous improvement of the technologies of the work process. In order to maintain and raise the productive standard Vetroresina has organized substantial investments, and thanks to the contribution of advanced technologies and of the strict collaboration with universities and experts in the sector it was able to welcome the variations and new needs of the market.

The high technological level associated with a particular attention to aesthetics and materials have given place to a diversification of products extending the range and fields of application. Vetroresina has a productive capacity of 129 pieces per day and extends over an area of 46,000 square meters. In June 2000 Vetroresina opened an establishment in San Paolo, Brazil, from which it can face the needs of the South American market and from May 2008 the company is proud to include a new productive site in the US where it can focus its energy to managing the North American market.