

Technical Information – Fleece for Veneer Backings 2004

There are many different purposes of use for fleece for veneer backings. A large variety of fleeces are offered especially in the field of softforming and profile wrapping.

Nowadays, fleece is the most secure veneer backing, even if there is anti-splitting for cheap uses as well. Fleece types are partly offered on the market as well, which leave a lot to be desired regarding temperature stability and cleaving resistance. Trust our standard.

Currently, we use the following fleece backings:

Fleece Standard (23/20)	thickness approx. 0.05 mm
Fleece 30g (30/30)	thickness approx. 0.07 mm
Fleece P50 (50/30)	thickness approx. 0.10 mm
Fleece P50/D4 Automotive	thickness approx. 0.12 mm

Double fleece is used very rarely today and has been replaced by fleece P50.

Standard fleeces are glued with D2 PVAc dispersions. There is also the possibility of using D3 PVAc adhesive or D4 PVAc adhesive for special purposes of use. We point out that the pure use of corresponding adhesives does not yet lead to a corresponding quality of the conglutination of the fleece veneer compound. We are in the position to give a guarantee for D3 or D4 conglutinations and are able to produce them, if such requirements are requested.

A special field of use is our Fleece P50/D4 Automotive for which we guarantee resistance to boiling water as well as to UV rays. This fleece is currently used in series in the automotive industry as well as for profile wrapping of solid wood and aluminium (windows, doors). It can even be used in the textile and plastic industry.

The necessary flexibility for deformation processes at the outer radii are exclusively influenced by the veneer itself, i.e., the thinner the remaining thickness of the veneer, the more flexible the fleece veneer compound. For this reason a thicker fleece provides a higher flexibility after sanding because of the remaining thickness of the veneer. The use of a thicker fleece is not obligatory at the outer radius; the remaining thickness of the veneer alone determines the degree of flexibility.

However, if we wrap inner radii, we additionally need a correspondingly high tensile strength, which increases more or less in direct proportion with the thickness of the fleece.

Until approximately one year ago, **double fleece** was used for that reason, i.e., standard fleece was partly laminated twice. This method was **replaced by fleece P50**, because it combines the same tensile strength, the same material thickness as well as a high cleaving resistance with a highly secure processability.

Besides of the remaining thickness of the veneer the moisture is, of course, also responsible for the flexibility. Regarding moisture there is a separate and detailed article written by Furwa. As a rule of thumb, moisture + 5% is comparable to a wood's thickness reduction of 0.03 – 0.05 mm. Processability at a moisture higher than 12% needs to be tested, as gluing problems as well as dry cracks might occur.

Regarding the gluing process, the standard fleeces as well as the Fleece P50/D4 Automotive can be used with all EVA hot melts, Polyolefine hot melts, PUR hot melts and PVAc dispersions. For special purposes of use you should always make own test or discuss the conglutination with us in detail.

Furwa Furnierkanten GmbH