Bonding of Plywood Using Hot Melt Adhesives

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The paper presents the strength tests results of joints made by use of two hot melt adhesives. The tests were carried out according to the modified standard ČSN EN 1465 (66 8510) and ČSN EN 205 (66 8508). For bonding the three-layer plywood of 4 mm thickness was used. The test samples of 100 x 25 mm size were cut out from a semi-product in the direction of its longer side, in the oblique direction and in the direction of its shorter side. The specimen pairs were bonded using the hot melt glue gun. All assemblies were loaded up to their destruction. The destructive force and the destruction type were registered. From the results of carried out tests evaluation it follows that hot melt adhesives can be recommended for bonding plywood. The bonding strength of bonded joint is comparable to the strength of the bonded material. Finally the technical-economical evaluation of the experiments was carried out.

Keywords: three-layer plywood; adhesive bonding; hot melt adhesive; hot melt glue gun; bonded joints testing

References


