

Abstract :

Four types of sandwich panels with multilayered designs were produced using wood veneer of Aleppo pine as face and inner sheets, and cork agglomerate as core, intended for use in construction as panelling or partition walls in interior applications. These multilayered sandwich panels were characterized regarding static hardness and dimensional stability when facing changes in relative humidity and when subjected to a deformation. The panels showed a considerable increase in dimensional stability and shear strength with the increase of the number of layers. The results suggest that the correct design choice, for example number of inner wood sheets and thickness of cork core layers, allows these sandwich panels to be used as non-structural construction elements such as partition walls.