In this study it was examined the strength performance of a fully laden bookcase (TSE-5913 2009) in a single-storey building under the effect of horizontal earthquake forces. To this end, 180 test samples were produced from surfaced particleboard with three different joint and glue types. This study theoretically and empirically examined the changing effect of the theoretically-measured maximum moment caused by minor earthquake forces affecting the bookcase joints. The theoretical and experimental analysis showed that polyurethane glue had the highest (140690 Nmm), polyvinylacetate glue the lowest (115467 Nmm) adhesive performance and that a combined joint gave the highest (132081 Nmm), dowel joint the lowest (122305 Nmm) joint performance.