Provide safe flooring in housing environments related to elderly

Applied technologies to absorb impact in the event of a fall

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One of the most common dangerous cases that occur for all elderly people is falling. Approximately 50% of old people over 65 falls at least once a year and this rate is about 40% in nursing homes which involves the elderly in long term painful erosive treatment and the high cost of cure. It is impossible to avoid falling and researchers are providing different methods in order to reduce the rate of injuries. Many of the current solutions have some weaknesses, such as restrict activity and reducing the sense of independence or privacy.

This study focuses on evaluate today Shock absorption floorings\textsuperscript{1} available in Spanish market, include anti-slippery properties. Usually, the shock absorption floorings are oriented for kids in outdoor playgrounds, for teenagers in gym and sports areas or even applied in industrial zones to control the weight, impacts or vibration of machines, but there is not any shock absorption floor specific oriented to seniors in order to protect them.

In this research, it will be evaluated some of such shock absorption floorings to be suitable for elderly housing. The evaluation will be quantitative by in situ test and qualitative by questionnaire provided to the users: elderly, sanitary staff, cleaners, etc.

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\textsuperscript{1} Known as: Compliant flooring, Safety flooring, Softer surface(s), Impact absorbing flooring—Impact absorbent flooring, Impact-absorbing flooring, Energy absorbent flooring, Dual-stiffness flooring, Absorptive Surfaces, Absorbent flooring...