



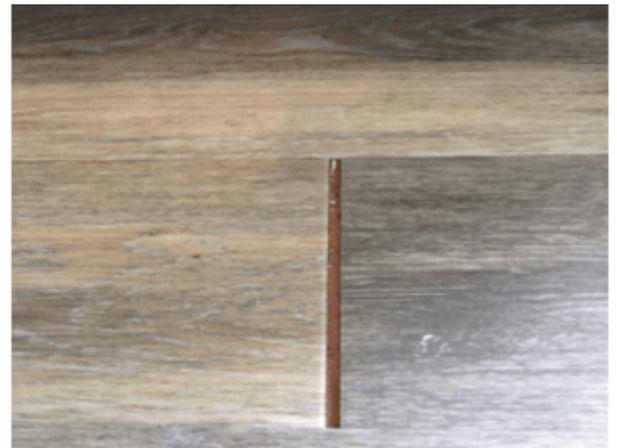
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FLOORING

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THERMAL EXPANSION OF LUXURY VINYL TILE AND PLANK FLOORING

We are receiving more and more complaints of LVT, LVP, EPC, and WPC products used in rooms with glass doors, skylights, or big window areas that are growing/expanding and then gapping, especially at the end joints. If these products contain vinyl, which they do, they have a great chance of failure in areas exposed to direct sunlight over long periods of time. This is not a new scenario. This has been happening for the last 10 years, but with the increasing popularity of these [Luxury Vinyl](#) products it has become very common today.

When floating LVT was first introduced (Konecto), this is when this trend started. The floating LVT was installed with expansion around vertical objects and the perimeter, but when the direct sunlight beat in on these products they would expand as vinyl does when it gets warm and grow and the expanding LVT flooring would eat up the expansion space and create pinch points and then it would start to tent up. The angling sunlight coming in through glass doors, skylights, or big window can hit temperatures of 120°F or more depending on the time of year, intensity of the sun and where the sun is positioned in the sky.



The sun and heat cause the vinyl plank to expand.....and then as the sun and heat subside, it contracts



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We are seeing this with floating, self-stick, and glue down Luxury Vinyl Flooring, EPC and WPC products. As the sunlight decreases, the flooring will start to contract and go back down to size. But this happening repeatedly day in and day out will cause floating floor locking systems to disengage, self-stick and glue down this has a shearing effect («) on the adhesive and eventually the product loses its bond. I have seen Luxury Vinyl Planks with fiberglass inner layers grow up to 1/4" in the sunlight and then shrink back when the sunlight is blocked.

What is the flooring manufacturer's liability in these applications? Absolutely none. If you read the manufacturer's instructions, they usually have an area covering this scenario as listed below;

Installation in areas with sustained direct sunlight:

In cases where the flooring is in direct sunlight for much of the day (Sunrooms, etc.) and the interior temps will exceed 100 degrees, it is recommended that the planks be glued down in those spots/areas. The planks are still clicked together as per the floating installation instructions, but an approved premium Luxury Vinyl flooring adhesive should be used in areas as needed.

Should not be exposed to direct sunlight for prolonged periods. It can result in discoloration and excessive temperatures that may cause expansion. The use of drapes or blinds is recommended during peak sunlight exposure. If drapes or blinds are not going to be used and expansion occurs in this area, we recommend adhering this area with adhesive.

Direct sunlight may cause fading or the adhesive strip to separate. Protect from direct sunlight using window treatments or UV tinting on windows.