

WPR

Wet Pour Rubber Crumb



Re: UV Discolouration of Aromatic Polyurethane Binders

This statement concerns UV "yellowing" effect which can occur on Wet Pour safety surfaces and has a temporary effect. All aromatic PU binders will yellow in exposure to UV light, this is a function of their chemistry and 99% of all playground surfaces are installed using this type of binder. The alternative is to use Aliphatic non yellowing binders; however, these binders are a significant cost uplift (circa 3x aromatic binder cost). It should also be noted that this temporary issue is purely aesthetic and the integrity of the safety surface is not affected.

In the vast majority of cases this yellowing effect is not noticeable however, in certain weather conditions the thin film of binder which covers the very top granules will be noticeable. If the colour of the granules is light (blue/grey/white is particularly problematic) then the yellow film can cause temporary surface discolouration (Blue surfaces will often appear Green). The layer of binder which causes this effect is Microns thin and the granules themselves are not discoloured – see below image:





This effect can be particularly noticeable when some areas are in the shade and others are exposed to direct UV light, see image below:



This discolouration is temporary and in some cases the colour will return to normal during the full curing process (2-3 weeks) and in other cases the discolouration will remain until the surface is in use, the thin film of binder on the top will then wear off and the surface will return to its original colour. It is usually possible to take a loose discoloured granule from the surface and scratch the surface to demonstrate this process.

It is not possible to say accurately how long this will take as it depends on the usage of the surface. If any questions are not covered in the statement above please reach out to discuss directly.

Got questions? Give us a shout.

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