



Strength Improvement with SRM

What is SRM?

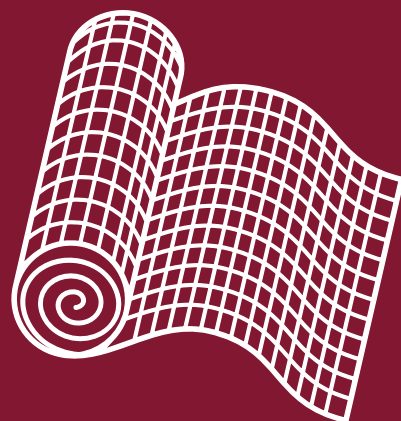


Does SRM improve your Resin Bound Surfacing Systems?

Our SRM isn't only used in our VubaMac system. It can also be used to improve the strength of a standard Resin Bound Surfacing System. Adding elongation and high flexural strength to the systems to help mitigate cracking and enhance longevity over substrates. The use of SRM, whether in an overlay, crack mitigation or part of the VubaMac system is proven to increase the flexure strength, tensile strength and overall longevity of a project.

Why did we test this?

In the industry there are numerous mesh options varying from layered meshes, to grids, to matting. In the Vuba lab we realised there is an optimum detail between providing enough extra strength and flexibility whilst not overly decoupling from the sub base. This was from doing two types of testing, a scuffing test and using our Universal Testing Machine for 3 point bend tests.





What tests did Vuba do?

Vuba conducted two types of tests to demonstrate the level of improvement SRM adds to strength in a resin bound project.



Test 1 3 point Bend Test

We laid samples of standard Resin Bound Surfacing, half of the prisms with an SRM base and half without. After allowing for a full cure we put them into our Universal Testing Machine and we found that the samples with the SRM attached performed better than those without. The SRM dramatically increased the strength, going up by 73%.

RESULTS

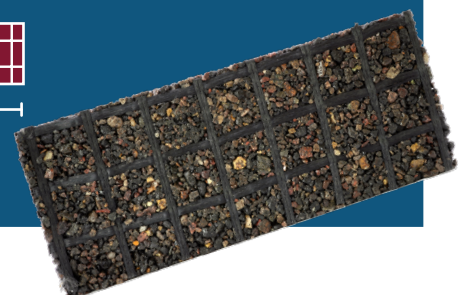


SRM resulted in a **73% increase** IN STRENGTH.

Without SRM

With Vuba SRM

Strength



Test 2 | Scuffing Test

Vuba sent a set of 18mm Resin Bound samples to a UKAS approved lab for scuffing tests. In this process we found that the bond between Vuba Resin Bound Surfacing and the sub base is particularly strong, which aids the longevity and resilience to scuffing and high traffic. Therefore when designing our SRM we knew the aperture still needed to allow for our resin to create the strong bond with the sub bases. The optimal size for this was a 30mm x 30mm aperture allowing for the added strength to be embedded into the surface, increased flexibility while keeping the bond at a suitable level to maintain our high scuffing resistance.

Specimen Number	00507	
Thickness of Slab (mm)	18mm	
Date of Test	29/11/2023	
Time of Test	07:50	
Test Temperature (C°)	45.7	
Tyre Pressure (Bar)	Initial	3.1
	Final	3.1
Tyre Tread Depth (mm)	Initial	1.0
	Final	0.9
Angle of Tyre to direction of Travel	20°00'	
Surface Texture Depth (mm)	Initial	1.3
	Final	1.3

RESULTS

Results Below

Our Resin Bound Surfacing lost 0g of aggregate and had an Erosion Index of 0. Meaning no loss of depth, and the addition of our SRM keeps these results exactly the same!

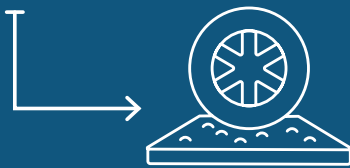


Visual condition:

No erosion or aggregate loss in the scuffing track.

0.0

Erosion Index



No damage after 500 wheel passes

Conclusion

It was crucial after our incredible scuffing results that we didn't affect the bond of our surfacing to sub base, so our SRM needed to increase strength whilst maintain enough space for a good bond. The Vuba lab managed to develop

our SRM to not only increase the strength of Resin Bound Surfacing by 73% but also maintain the high scuffing resistance. Demonstrating that SRM is the prime product to help elevate your Resin Bound Surfacing to the next level!



Find out more **from our technical team:**

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