






Problems and Issues:


Case Study 1: Cracks, Crumbling and Sub-Base showing through

 <p>(i)</p>	<p>This Resin Bound Aggregate surface had been down 5 years: issues began almost at once – i.e. cracking, crumbling, wearing of surface showing tarmac base:</p> <p>(i) Generally horrible result, and left householder wishing he had not gone for the cheapest quote.</p> <p>(ii) Resin laid too thinly, only 5-10mm (should be min 18mm),</p> <p>(iii) cracks exacerbated by action of frost / freezing are deep to the base tarmac and have gradually expanded through time.</p> <p>(iv) Resin Bound mix all 1-3mm aggregate and not enough resin to bind properly, so crumbly i.e not to standard mix formular,</p> <p>(v) cracking is also evidenced along the lines of where the new mixes are trowelled against the previous mix .. too dry to blend.</p>	 <p>(ii)</p>
 <p>(iii)</p>		 <p>(iv)</p>


Case Study 2: Banding

	<p>Banding, where mixes have been</p> <p>(i) left for too long, so resin product dried out and does not blend into newly laid mix,</p> <p>(ii) an inexperienced floater, has not floated to compensate for irregular level of underlying base</p> <p>(iii) if the weather is above 20-25 degrees then ensure the resin products and mixer are kept shaded, the workable time to lay the resin is very much reduced and more difficult to trowel.</p>
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Case Study 3:

<p>The dreaded 'white patching': it is essential to lay resin on a dry day, on a dry surface, as water effects the resin, as does using 'damp' aggregate. Everything must be dry. Weather conditions such as rain, humidity, dew, wet aggregate or any other ground moisture can present a big danger to your Resin Bound system. Moisture and resin react together instantly, producing gas bubbles which will appear as foam or clouding within the resin. It is critical that you avoid moisture at all costs.</p>	
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Case Study 4: ‘Rainbow’ effect

	<p>Mixes are ‘rainbow’ effect, can be the result of</p> <ul style="list-style-type: none"> (i) the mixing process has not been expertly ‘time controlled’ so there is no longer a consistency of resulting stone size whilst in the mixer. More or less time gives a lighter or darker tone to the mix. (ii) the standard mix of 4 x 25kg bags of varying size of stones have not been complied with i.e. human error in standard mix of 1-3 and 3-5 mm stones (iii) Contractor running out of the correct mix of stones / sizes.
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Case 5: Patching

<p>Patching: It is possible to patch in new resin bound aggregate to existing surface, but, the new mix may not be mixed to the same time limits / may age differently and also there may be a ‘join’ line whereby dirt can get into the edges.</p>	
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Case Study 6: Standing water

	<p>Water standing on the Resin Bound Aggregate surface:</p> <ul style="list-style-type: none"> (i) basically, the underlying base is not permeable i.e. sub-standard and not fit for purpose. (ii) and, when overlaying an existing surface with Resin Bound Aggregate, the existing base must be treated to ensure water runs off within the curtilage of the property.
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Case Study 7: Surface cracking

	
<p>Base installation sub-standard, so resin surface will crack and ripple when vehicular weight on top - think of icing on a sponge cake!</p>	


Case Study 8: Trowelling / Floater marks

	<p>Trowelling / Floater marks, where the inexperienced floater has left marks in the finished Resin surface, usually as a result of</p> <ul style="list-style-type: none">(i) incorrect trowelling to smoothly blend the resin surface,(ii) over-working the resin,(iii) the resin mix is left too long = too hard to be trowelled properly,(iv) the temperature is too hot / cold to lay resin, especially on a tarmac surface, so drying time much less.
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Case Study 9: Tree root action

<p>Tree root action = cracking i.e. the base layer has not been prepared correctly: tree roots need to be cut out and/or encouraged to grow downwards. Also, base structure is substantial enough to withstand root invasion i.e. include steel reinforcing mesh. However, 'nature will win eventually' ... so cracks may be unavoidable in the long-term, especially near to mature trees.</p>	
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Case Study 10: Moss and invasion of weeds

	<p>Invasion of weeds through the Resin surface:</p> <ul style="list-style-type: none">(i) Base preparation is not sufficient i.e. may not have included permeable membrane(s) to stop the weeds coming through.(ii) Resin surface is too thin / wrong mix so that resin has not formed a bound surface and seeds have lodged in the surface and grown, over time roots will destroy resin.(iii) A weak solution of weed killer can be used, however, regular pressure washing maintenance will also cure the problem.
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NORMAL USE FOR RESIN BOUND SURFACES

Resin Bound surfaces are intended to be used by normal pedestrian or vehicular traffic for which they have been designed. Protection should be provided wherever possible against abnormal damage. Heavy goods vehicles should not be permitted to park on or regularly traverse Resin Bound surfacing unless it has been allowed for in the overall construction. The Resin Bound installation will have no problem with parked cars or other regular uses for a driveway.

ROUTINE RESIN BOUND SURFACE MAINTENANCE

On completion of the project Block and Stone offer a comprehensive 'Resin Bound Aftercare & Maintenance Guide', and it must be remembered that to keep your new surface looking stunning and pristine for years to come some simple after care and procedures should be followed. Routine maintenance: the Resin Bound surface should be regularly swept clean with a stiff broom, removing leaves and detritus materials in order to prevent moss growth and hosed with clean water.

WASHING A RESIN BOUND SURFACE

The surface must be cleaned periodically using a pressure washer or a sweeper fitted with water jetting and vacuuming equipment. Washing can be carried out using a portable pressure washer (up to 150 bar rating) to remove dirt, grime and moss. Ensure care is taken not to damage the surface with excessive pressure. Only cold water should be used and the water lance must be kept at least 200mm from the surface and a fan type jet used.

CAN OTHER ELEMENTS BE REMOVED FROM A RESIN BOUND SURFACE?

Yes, and our 'Resin Bound Aftercare & Maintenance Guide' gives the requisite treatments for: Chewing gum; Moss/Algae growths; Weeds; Cement/Concrete marks; Oil stains; Accidental spillages; Dirt/Sand/Soil; Mineral staining; Ice/Frost/Salt;