



# Resinous Flooring

## Troubleshooting Guide

### TDS 452

Complaint	Cause(s)	Prevention
<b>Coating Does Not Bond</b>	<ol style="list-style-type: none"> <li>1. Improper Substrate</li> <li>2. Surface Contamination</li> <li>3. Surface not Properly Prepared</li> <li>4. Excessive Moisture</li> <li>5. Solvent Entrapment</li> <li>6. Improper Material Used</li> </ol>	<ol style="list-style-type: none"> <li>1. Not all surfaces are acceptable to receive resinous coatings. Typical substrates include concrete, metal, existing tiled flooring, or existing poured epoxy flooring. Follow the suitable substrates list printed on the applicable product datasheet of the resinous product you will use.</li> <li>2. Substrate should be dry and free of dust, dirt, oil, grease, loose paint, laitance, efflorescence, curing compounds, sealers, water repellents and other materials that can prevent bonding.</li> <li>3. All SPARTACOTE floor coatings require a textured surface to achieve a mechanical bond. This should be done by mechanical means as it does not introduce additional chemicals or bond breakers. Typical profiles for coating in the SPARTACOTE line range from a Concrete Surface Profile (CSP) of CSP-2 to CSP-5 as outlined by the International Concrete Repair Institute (ICRI). Additionally, when more than one product is used it may be necessary to sand in-between coats. Follow the surface profile recommendation and installation instructions printed on the applicable product datasheet of the resin(s) to be used.</li> <li>4. Most SPARTACOTE resinous flooring material can be affected by moisture from the slab and as such a moisture test is suggested prior to the application of the coatings. If the moisture test reading exceeds 75% RH when tested per ASTM F2170, the use of SPARTACOTE Moisture Vapor Barrier or VAPOR BAN™ ER is required. Additionally, topical moisture from dew can also create bonding issues. Make sure the surface to be coated is dry and that the install is not conducted within 5 degrees of the dew point.</li> <li>5. When using a resinous product that contain less than 100% solids as a base coat, proper recoat times should be observed. Recoating these products too early can entrap the products' carrier (usually water or solvent) and cause bonding issues. This is also true if a solvent wipe is conducted and not allowed to properly flash off.</li> <li>6. Not all SPARTACOTE resinous products are compatible with one another. If two incompatible products are used together, a weak bond can form and cause problems in the future.</li> </ol>
<b>White/ Cloudy Coating Finish</b>	<ol style="list-style-type: none"> <li>1. Improper Mixing</li> <li>2. Material Applied too Thick</li> </ol>	<ol style="list-style-type: none"> <li>1. Pending the product used and the amount to be mixed, mixing should be done using a slow speed mixer or a stir stick. Avoid overmixing or creating a vortex that could introduce air into the mix and alter the final appearance.</li> <li>2. Follow the written guidelines and material thickness charts printed on the product datasheet of the resinous</li> </ol>

<p><b>White/Cloudy Coating Finish cont.</b></p>	<p>3. Water/Solvent Entrapment</p>	<p>product being used. Installing some SPARTACOTE resins in excess of these recommend thicknesses could result in a white or cloudy finish.</p> <p>3. When installing over a resinous product that contain less than 100% solids, proper recoat times should be observed. Recoating these products too early can entrap the products' carrier (usually water or solvent) and cause discoloration. This is also true if a solvent wipe is conducted and not allowed to properly flash off.</p>
<p><b>Fisheyes</b></p>	<p>1. Surface Contamination 2. Contaminated Air Supply 3. Cross Mixing Materials</p>	<p>1. Existing contaminants (i.e. sealers, curing compounds, oils, etc.) must be removed mechanically with the use of a floor grinder or a shot blasting machine. See applicable product datasheets for surface profile requirements. If the floor is heavily soiled with grease or oil, the use of a degreaser (e.g. L&amp;M™ CITREX™) is recommended prior to the floor being mechanically profiled. Flush the surface with clean water, allow to dry, and profile the surface following the applicable resins datasheet. Additional all care must be taken to remove all dust and debris from the surface to be coated as this too can increase the likelihood of fisheyes.</p> <p>2. Properly circulate or filter the air to prevent dust particulates from settling on the surface of the coating. Make sure your vacuum provides adequate suction to remove dust and has a cleaned filter to prevent dust from leaking out of the unit. An HEPA filter is suggested for the vacuuming of fine concrete or coating dust particles.</p> <p>3. All SPARTACOTE resinous products has different flow rates and therefore can have different surface tensions. If two products with different flow rates and surface tensions are used atop of one another, the coating can experience a separation and fisheyes can occur. This typically does not affect the bonding of the coating.</p>
<p><b>Pinholes, Bubbles</b></p>	<p>1. Surface not Properly Prepared 2. Concrete is too Porous/ Outgassing 3. Not Enough Material Applied 4. High Moisture Vapor Emission Rate or High Humidity</p>	<p>1. Substrate should be slightly textured and free of dust, dirt, oil, grease, laitance, efflorescence, curing compounds, sealers, water repellents and other materials that prevent bond. Follow the installation instructions on the applicable product datasheet of the product being used.</p> <p>2. Porous concrete can release air and other gases when coated with a resinous product. If the concrete seems overly porous, a prime coat of an acceptable SPARTACOTE Primer should be installed. Alternatively, the resin to be used can be installed pulling a tight coat (using a squeegee) prior to the main application of that product. Allow to become tacky but dry and proceed with the normal coating install.</p> <p>3. Follow the suggested thickness written on the product datasheet of the applicable product(s) to be used. Installing a coating outside of this range can have adverse effect on the final appearance.</p> <p>4. Most SPARTACOTE resinous flooring materials can be affected by moisture and as such a moisture test is suggested prior to the application of the coating. If the moisture test reading exceeds 75% RH when tested per ASTM F2170, the use of SPARTACOTE Moisture Vapor Barrier or VAPOR BAN™ ER is required. Additionally, high humidity can also create an atmosphere in which</p>

<p><b>Pinholes, Bubbles cont.</b></p>	<p>5. Improper Mixing 6. Wrong Tooling</p>	<p>bubbles can form. Typically, high humidity results in many small bubbles on the surface of the coating.</p> <p>5. Pending the product used and the amount to be mixed, mixing should be done using a slow speed mixer or a stir stick. Avoid overmixing or creating a vortex that could introduce air into the mix causing bubbles to appear in the finished floor.</p> <p>6. Using the wrong napped roller cover can cause air to be generated into the coating material which can present itself as bubbles. LATICRETE recommends that an 18” 3/8” nap roller be used for all SPARTACOTE coatings.</p>
<p><b>Broadcast Media Not Adhering</b></p>	<p>1.No Resinous Material to Stick to. 2.Resinous Material has set Prior to Broadcast</p>	<p>1. Not properly covering the substrate with the resinous product can lead to a situation in which there is no resinous material for the broadcast media to stick to. It is important that the entire substrate is covered with the resin prior to the broadcast. A back roll is always suggested and helps level the coating and fill in some spots that may have been missed.</p> <p>2. It is important to broadcast the desired media while the coating is still wet. Broadcasting media onto dried resin would result in the media not sticking. Observe the working time and temperature restrictions listed on the product datasheet of the product to be used.</p>
<p><b>Roller Marks in Coating</b></p>	<p>1. Dry Roller 2. Back Rolling to Late 3. Wrong Tools Used</p>	<p>1. Starting out with a dry roller will remove some of the coating from the floor creating an uneven layer of resin. Always “Wet Out” your roller prior to spreading the resinous coating material across the substrate. Do this by passing the roller a few times over the puddled resinous material.</p> <p>2. It is important to back roll the coating immediately after the initial spread and while the coating is still wet. Observe the working time and temperature restrictions listed on the product datasheet of the product to be used.</p> <p>3. Using the wrong napped roller cover can cause uneven amounts of material to be left of the surface which can present itself as roller marks. LATICRETE recommends that an 18” 3/8” nap roller be used for all SPARTACOTE coatings.</p>
<p><b>Control Joints Raised/ Lifting</b></p>	<p>1. High Moisture Vapor Emission Rate 2. Joint Fill Material Effected By Moisture 3. Concrete Movement</p>	<p>1. Moisture can be concentrated and released in areas of the concrete that is the weakest. As the coatings are membrane forming, when this happens the pressure can push up the coating from the substrate. It is best practice to honor movement and control joints within an assemble and use a proper joint fill material to fill the joint after the coating is installed.</p> <p>2. The joint fill material used can be affected by moisture and chemically react resulting in it swelling. It is best practice to honor movement and control joints within an assemble and use a proper joint fill material to fill the joint after the coating is installed.</p> <p>3. Control joints and movement joint are placed in the concrete to create a weak point in which the concrete will hopefully crack when movement occurs. If this joint is filled flushed to the surface, and the movement does occur, it can cause the joint fill material to compress and</p>

		swell at the top creating an elevated finish.
<b>Wrinkled Coating</b>	<ol style="list-style-type: none"> <li>1. Improper Thickness of Coating</li> <li>2. Solvent/ Chemical Attack</li> </ol>	<ol style="list-style-type: none"> <li>1. Follow the written guidelines and material thickness charts printed on the product datasheet of the resinous product to be used. Installing some SPARTACOTE resins in excess of these recommend thicknesses can result in the coating wrinkling after drying.</li> <li>2. Some SPARTACOTE coating can react with the prior coat causing it to wrinkle or delaminate. Please review the product datasheets and our website <a href="http://www.laticrete.com">www.laticrete.com</a> for system recommendation when multiple coats are being installed.</li> </ol>
<b>Rips, Cracks in Coating</b>	<ol style="list-style-type: none"> <li>1. Coating over Control Joints, Cracks &amp; Movement Joints.</li> <li>2. High Thermal Shock Environment</li> </ol>	<ol style="list-style-type: none"> <li>1. Control joints and movement joint are placed in the concrete to create a weak point in which the concrete will hopefully crack. If the joint was covered by a coating and movement occurs, it can cause the coating to crack directly above it. Additionally, coating over an existing crack that is still moving will cause the coating to crack above where the existing crack is if not properly addressed.</li> <li>2. Environments in which large temperature swings can occur almost instantly, can put a massive strain on a resinous coating system and cause it to crack or delaminate. For these areas we recommend the use of the SPARTACOTE Urethane Cement system.</li> </ol>
<b>Material Flash Setting</b>	<ol style="list-style-type: none"> <li>1. Installation/ Material Temperature</li> <li>2. Improper Mixing</li> </ol>	<ol style="list-style-type: none"> <li>1. SPARTACOTE resinous products are greatly affect by temperature. If the substrate, ambient or the material temperature is too high it will cause the material to set up quickly. Review the product datasheets of the resin(s) being used to see the appropriate material, and installation temperatures.</li> <li>2. SPARTACOTE offers a wide variety of resins (e.g. Epoxy, Polyaspartic, Urethane, etc.) to address different performance requirements. As such, it is important to mix the materials as outline on the product datasheet. Failure to do so can result in poor performance, rapid or no curing, and other issues.</li> </ol>
<b>Tacky/Sticky Surface</b>	<ol style="list-style-type: none"> <li>1. Improper Mixing</li> <li>2. Introducing an Outside Chemical or Additive</li> </ol>	<ol style="list-style-type: none"> <li>1. SPARTACOTE resinous products are reactive resins that cures when mixed properly. Mixing outside of the published ratios listed on the product datasheet can lead to the resin not properly curing.</li> <li>2. Adding materials not approved by LATICRETE Technical Service can lead to the resins not properly curing. Always consult the product datasheet or LATICRETE Technical Service for recommendations and installation guidance.</li> </ol>
<b>Premature Wear</b>	<ol style="list-style-type: none"> <li>1. Improper Maintenance</li> <li>2. Weak Concrete</li> <li>3. Wrong Coating System Used</li> </ol>	<ol style="list-style-type: none"> <li>1. Improper or poor maintenance can lead to premature wearing of the coating system. Review Technical Datasheet <a href="#">TDS420</a> for recommendation on floor maintenance.</li> <li>2. The coating system will only be as good as the substrate it's installed over. If you have weak, crumbling or powdering substrate, this will have a direct impact on the longevity of the coating system.</li> <li>3. LATICRETE offers a wide variety of resin types and coating systems to handle different types of environments. It is important that the correct one is</li> </ol>

		chosen for the environment it will be install in. Review <a href="#">TDS421</a> and/or consult with LATICRETE Technical Service for recommendation for your given environment.
<b>Color Differences/Shadowing</b>	<ol style="list-style-type: none"> <li>1. (Gloss) Recoating Too Soon</li> <li>2. (Gloss) Poor Air Circulation</li> <li>3. (Color) Different Batches</li> <li>4. (Color) Improper Mixing</li> <li>5. (Color) Chemical Exposure</li> <li>6. (Color) Color Penetration</li> <li>7. (Color) Sun/ UV Exposure</li> </ol>	<ol style="list-style-type: none"> <li>1. All resinous product has a suggested recoat window. Installing subsequent coats too soon can affect the final appearance of that coat.</li> <li>2. If proper air movement or ventilation is not provided, the solvent carrier, if applicable, can become trapped in the coating and affect the gloss.</li> <li>3. Each batch of material is a new mix of raw material that can differ in color. If possible, try to use materials from a single batch for your installs. If this is not possible, pre-blending pigments prior to use can aid in achieving a solid color. It is important to still observe the correct mixing ratios of the materials being used.</li> <li>4. For pigmented coats, it is suggested to fully mix the pigment into one of the parts of resins prior to mixing the unit (Parts A &amp; B) together. If this is not done it can lead to color streaks. Additionally, not all colors will work with all resins. Please see the applicable datasheet of the resin(s) being used as to what part the pigment should be mixed in and what colors are not recommended.</li> <li>5. Resinous coatings are resistant to some chemicals but can be affected by others. These chemicals can breakdown the coating or cause it to change color, typically cloudy or white. Please see the applicable chemical resistance chart of the resin(s) being used for chemicals they are resistant to. It is always suggested to conduct an on-site mockup exposing the system to jobsite conditions to confirm results.</li> <li>6. The porosity of the concrete will have a great impact of the coating being installed. If concrete has an uneven, porous surface, full color hide may not be possible due to the coating film loss into the substrate. Always conduct an on-site mockup to confirm results.</li> <li>7. Not all coatings are UV resistant. These coatings, when exposed to UV rays, can discolor or fade. This typically does not affect the performance of the coating just the appearance. Please see the applicable datasheet of the resins used for more information on its UV stability.</li> </ol>

Technical Data Sheets are subject to change without notice. For latest revision, check our website at <https://laticrete.com>  
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