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Liquid Surface Creations™

Overview

This fabulous new decorating product was recently featured on the ABC New Inventors Show. It has the DIY community buzzing about its modern snazzy appearance, ease of application and the low price. Liquid Surface Creations™ creates a three dimensional liquid glass look on almost any surface. Home renovators and new builders love it because you can make something unique by adding your own creative design effects on floors, kitchen splashbacks, shower and bathroom walls and floors and a wide range of other surfaces

Use and Description

LSC is recommended for *kitchen splash backs and benches tops, shower walls & bases, timber and steel stairs treads, table tops, sideboards & coffee tables, bar & restaurant table tops & joinery, domestic and commercial floors, cupboard doors, front house doors, internal commercial doors and wall paneling, picture frames, air brush artwork panels, fish tank surrounds & display walls, small and large corporate artwork wall features, commercial ceiling panels, transportable exhibition floor panels, exhibition display joinery, bed head and side rails, tops and inserts furniture, shop fittings and commercial displays light box panel faces applied semi transparent on glass or Perspex, architectural columns on PVC & cement sheet* and many other creative and decoration uses.

The key to successful application of LSC is proper surface preparation and correct application.
By following the simple procedures listed below you will be ensured of a durable long lasting finish and a safe application procedure.

Application Rates

Liquid Surface Creations™ is applied at a rate of 1 to 1.5 litres per 1 square metre of surface using a trowel application technique. Roller and spray application will use more or less material subject to surface conditions and the texture finish required. Very light and transparent colours such as "Glass Green/White" will require a thicker coverage to obtain an even finish i.e. up to 2 litres per square metre. It is also very important to make sure that the surface is primed with White Aqua Epoxy or other suitable white substrate primer.

Smoother finishes and dark colours will require approximately 1 litre per 1 square metre resulting in a coating thickness of 1.0 mm. High build textures and lighter colours require 1.5 litres per square metre resulting in a coating thickness between 0.75 to 1.0 mm.

By using a roller or brush interesting textures can be obtained with more economical application rates up to 0.5 litres per 1 square metre with darker colours.

To obtain a deep glassy finish with the illusion of 3D depth it is necessary to apply a thick coating, rather than a minimal coverage coat. For this purpose it is advisable to order at least 20% more product than required to allow for adequate edge coverage and enough coating to easily move around to create your 'individual' pattern.

Surface Preparation

On clean new compressed cement sheet priming is not a pre-requisite unless a light colour is being used or a dark colour base is required for special effect. Priming the surface with Nutech Aqua Epoxy will guarantee adhesion and long term durability.

If you are coating compressed cement sheeting which will be used for shower walls or bases, sealing all sides of the board and edges is highly recommended to protect the compressed sheet and substrate in the event that joints or edge seals leaks at a future date.

To improve surface adhesion on porous surfaces or seal wet areas and provide a base for light colours, we recommend one coat of Nutech Aqua Epoxy applied at 0.1 litres per 1 square metre. Allow between 3 and 24 hours curing before applying Liquid Surface. The surface of the Aqua Epoxy should be touch dry and not tacky before applying the LSC. Do not exceed 24 hours before overcoating.

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On non porous surfaces light sanding or grinding is recommended to provide a surface key. On these surfaces a primer is not required unless a light colour is being used. Examples of this surface include Laminex™.

Experimenting with dark coloured primers for blue, green, gold, red and other topcoat colours has provided very different and interesting finish effects.

It is very important to ensure that the surface to be coated is clean and free of contamination from grease, oil, food, dirt, silicon, chewing gum, confectionary, flaking paint, varnish or other old coatings before applying Liquid Surface Products.

For application direct on steel plate or sheeting no primer is recommended unless a light colour is being applied for improved colour opacity purposes.

Refer to Nutech surface preparation Guidelines for full details before application. Nutech accepts no responsibility if inadequate surface preparation results in adhesion problems. Testing for adhesion on new surfaces is recommended before commercial use.

Adhesion on smooth glass surfaces is improved with the addition of a suitable glass adhesion promoter or primer.

Liquid Surface Creations™ is not recommended for concrete surfaces where hydrostatic water pressure is a problem from beneath the concrete, e.g. wet sub-basement floors and on floors above steam or cooking equipment in commercial buildings. Osmotic blistering can result if inadequate surface adhesion is established and hydrostatic moisture pressure is present. Testing moisture content in concrete floors is recommended before commercial application of Liquid Floor Art™ products. Do not apply if moisture content is above 5%.

New concrete floors, concrete repairs and cementitious patching and self leveling compounds must be allowed to cure for a minimum of 28 days under normal weather conditions before applying Liquid Floor products.

Where surface filling and leveling is required Nutech Epoxy 100 Patching compounds are recommended which can be over coated within 24 hours.

Mixing, Curing & Application

Liquid Surface Creations™ is supplied as a 2 parts mix;

Liquid Surface Creations Colour Part A - 5 parts by weight
Liquid Surface Creations Hardener Part B - 4 parts by weight

The mixing ratio is very important and we recommend that all the Part A is added to the Part B and then stirred thoroughly. Adding extra hardener will not improve the product and can cause problems for the finished appearance.

First drill the Part A until it becomes a free flowing liquid. If the content of the container is below 18 Degrees C. use a hot water bath to heat the product to approximately 20 Degrees before mixing with the Part B.

The Part B contents should also be above 18 Degrees C. Part A with Part B must be mixed with a high speed drill for approximately 5 minutes. While the mixture is rested for several minutes, scrape the insides of the container and bottom with a scraper to ensure thorough mixing. Drill again for an additional 2 minutes.

Mixing with a stick or slow drill will not adequately combine the two components and problems such as a loss of adhesion, appearance, gloss or other detrimental results can occur.

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After mixing, the product will be useable for between 30 minutes and 1 hour, subject to ambient temperatures. At 30 degrees Celsius the product will react faster and the pot life will be reduced. For every 12 Degrees C increase in surface and or ambient temperature the workable and cure time will be approximately halved.

After application at 20 Degrees C. the product will take approximately 4 hours to initially set and 24 hours before it can be touched and moved. After 48 hours the product can be carefully cut & trimmed, however it will still be 'green' and can be scuffed, scratched and damaged if care is not taken to protect the new surface. The product will take about 10 days to reach full cure and ultimate hardness is reached in about 28 days.

WARNING: If the mixed Part A & Part B is left in the can for too long a thermal reaction will occur and the container and contents will become very hot. Once this reaction begins the coating is no longer usable. There is no risk of fire, however caution should be taken handling the hot container. Dangerous fumes can also be released by the product in this process. Avoid breathing the fumes and ensure adequate ventilation at all times.

If a coated panel is placed in an oven or heat chamber for 1 hour after application at 50-60 Degrees C. the coating will be touch dry after several hours and full curing will be reduced to 24 hours.

Heating a room with central heating or external heaters will rapidly reduce the curing time.

Do not scrape out contents of mixing containers. Often thick components will stick to the inside surfaces and will not mix and activate. This unmixed product will cause problems on application.

Application Techniques & Information

It is important that the room where the product is applied has an ambient temperature of more than 18 Degrees Celsius. Do not apply in direct sunlight. The ambient temperature should be maintained below 30 Degrees C. in the first hour after application to enable adequate time for application tool defects such as bubbles to release and self level. Application and curing in temperatures or on surfaces less than 15 Degrees C. will probably cause surface blushing and unattractive surface defects. This is a problem with this type of polymer coating. Wiping the surface with Methylated Spirits, then sanding the surface and re-application of LSC will be required to repair this damage. This defect is commonly called blushing.

The recommended application and finishing tool is a 180mm (7 inch) Steel Gauging Trowel. For large panels and floors it is easier to spread the product quickly and evenly using a 100mm x 335mm or similar Round end Steel Trowel. For fine pattern finishes a smaller pointed or rounded trowel is useful.

It is also possible to finish the coating with a smooth or textured roller. Using a patterned or leather grained roller provides a very even and interesting looking stipple finish. Dragging a brush over the spread coating can also provide an interesting grained effect. Spray application is also possible which is a very economical technique, although a more solid colour finish is obtained and specialised equipment is required. Do **NOT** apply LSC through a standard 1 component airless or air assisted spray machine

Experiment with swirls, straight lines, broad & thin line, waves and rough textures. You have time to experiment. Be inspired! You can create an infinite variety of designs and finishes with different application and finishing tools. This is part of the designer fun you can have with Liquid Surface Creations™, just as the

name suggests. If two or more panels are required for one project, the same person should finish every panel with a similar pattern to achieve a consistent appearance.

Cutting, Trimming, Installing & Sealing Splash Backs

When using Liquid Surface Creations™ for kitchen and bathroom splashbacks the coating must be applied on 6mm thick compressed cement board or as recommended by the board manufacturer.

For example Villaboard™ is recommended by CSR for wet areas, kitchen splash backs and similar uses. For purely decorative purposes thinner board is acceptable and MDF, Plywood, chipboard, steel sheeting or any other flat surface may be preferable for weight or strength reasons. For Artworks and decorative paneling thinner MDF, ply wood or even art canvas is adequate.

At present Liquid Surface Creations™ applied on 6mm compressed cement sheet can be installed where the distance between the vertical surface and a gas burner is more than 200mm (refer Section on Fire Safety Below). Independent testing is being undertaken regarding the installation of kitchen splashbacks closer than 200mm of a bench cook top. Refer to our Web site for the latest information in this regard. The product is flame and heat resistant.

After the coating is adequately cured, the panel can be measured and trimmed to size using a simple 4 inch diamond blade on an angle grinder or circular saw. Placing strips of masking tape adjacent to the cut line will prevent accidental scratches or damage on new 'green' surfaces from the saw or angle grinder guide or base. Before or after installation the panels can be drilled to mark corners for power points and other switches, then cut out's removed easily with a small angle grinder.

Panels can be pre trimmed for exact sizing, and then post coated to ensure a perfect fit. Edges should be carefully trimmed with a sharp knife for a clean finish while the coating is still wet (e.g. within 1 hour). Dragging a knife along the edge may drag fresh coating, so care must be taken as timing is important. Too soon and the coating may slump over the edge again, too long and the coating will pull while cutting. If you leave it too long just use a file or sandpaper to neatly smooth edges after curing is achieved. After the coating is cured you can file or sand the edges for a very neat and clean finish. Take care when brushing dust off the surface on new boards. Compressed Cement Sheet contains sand and cement powder, which is very abrasive if wiped over the fresh coating.

To install the product, use Liquid nails or other suitable Polyurethane or Epoxy Adhesive on the rear of the sheet. Make sure an even film is applied. Press the sheet onto the backing and temporarily tape or brace onto the wall until the adhesive sets.

This splashback product can be installed over existing tiles and glass, cracked tiles and glass, plaster board, timber framing, ply wood, stone, steel or other similar structural surfaces.

Sealing edges and joints with bench tops with a clear silicon or coloured Polyurethane Sealant after installation is highly recommended (e.g. Fullers or Sika brand). This prevents water penetration behind the panel where damage may occur over time to the cement sheet or structure behind.

Floor Slip Hazard

Unlike a gloss ceramic tile, the polymer surface of Liquid Floor Art™ has a slight rubbery feel and most shoe soles grip very well to both wet and dry surfaces. At the HIA Home Show children were trying to slide on the glossy surface and were tripping up due to the unexpected grippy nature of the surface. However with any smooth surface, wet feet on a wet surface can present a slip hazard. Spills of oily fluids or food can also create pedestrian safety hazard situations.

Adding extra texture to the finish when applying will provide additional texture and pedestrian grip. . Nutech Paint Anti Slip Additives are recommended for shower bases and other similar wet areas to guarantee pedestrian safety.

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As Nutech Paint Pty Ltd and Liquid Surface Creations Pty Ltd will not be involved with the application or installation in individual cases, no responsibility can be accepted. Testing is always recommended to ensure customer satisfaction and adequate safety controls.

Cleaning & Maintenance

The surface is similar to a gloss polyurethane finish on a timber or stone surface. It can be scratched and marked if metal or stone objects are dragged across the surface.

Cleaning with a microfibre cloth, water and soap is recommended. Adding a small amount of Methylated spirits or other suitable mild non abrasive cleaner may be required occasionally to remove stubborn marks and before future recoating to strip the surface clean.

Application of a suitable liquid floor polish will extend and enhance the gloss surface, prevent damage and make cleaning easier.

Black shoe tread marks can be easily wiped off the surface using a dry or slightly wet micro fibre cloth mop.

If the Liquid Floor Art surface becomes scuffed the surface can be fully restored similar to a polished timber floor. Light sanding with wet and dry sandpaper and application of a new clear coat will restore the surface to a new appearance. On kitchen splashbacks and bench tops the wear characteristics will be very different to a floor and 10 to 20 years life expectancy is predicted provided harsh and abrasive cleaning products and scourers are avoided. It is possible to lightly sand, patch or even repair a vertical splashback and spray apply one clear coat to restore the surface at any time after installation.

On large floors wear characteristics are expected to exceed the performance of a timber floor. On small high wear areas surfaces such as commercial counters will scuff quicker and some maintenance will be expected. However, unlike Melamine, Laminex™, PVC, stainless steel, stone or painted surfaces, Liquid Surface products can be restored to a new condition time and time again as required. Because the product is economical you could also apply a different colour over the top as fashion and colour schemes change to keep up with the times.

Applying a proprietary liquid polish such as Johnson's "One-Go Clean & Shine Extreme Finish" is highly recommended on floors before use. Apply 3 even light coats with a clean mop. Each coat should be left to dry for approximately 20 minutes.

It is also possible to 'cut-&-polish' the surface in the same manner used for car paint surfaces. Minor and major damage can be repaired and the surface restored to an original finish at very low cost in this manner.

Refer to Nutech Liquid Surface Creations Repair Guidelines for complete and up to date information.

Product Safety & Handling

Liquid Surface products do not contain solvents, lead or other dangerous or toxic chemicals. Cleaning tools, spills and equipment may require the use of Nutech Epoxy Solvent (for fast action) or less hazardous Methylated Spirits (for slower reaction). These solvents are highly flammable and hazardous. Refer to specific Nutech Guidelines and Application Data for the correct and safe use of these products.

If you are coating a small splashback or floor you can throw away the trowel and stirrer after the coating dries. In this way you can keep the job totally solvent free. We recommend homeowners only use Methylated Spirits to clean up equipment and spills.

Liquid Surface products contain chemical polymers (resins), special effect pigments and colourants which are not toxic in the liquid or solid form. The Part B liquid is a corrosive material Part B is an Epoxy which can be a skin sensitizer, so care should be taken to avoid skin or eye contact.

With any chemical paint normal safety precautions should be taken to prevent skin and eye contact by wearing gloves and goggles and to prevent ingestion by persons or animals during application. Some people may also become allergic to the liquid resin resulting in contact skin dermatitis with continual use.

Infrequent or one off use of the product is highly unlikely to cause any problems provided contact is avoided with the liquid coating. If you are sensitive to chemicals we recommend that you do not use the liquid product and purchase the pre-fabricated sheet. The following steps for use are recommended;

1. Wear clean, long-sleeve, long-leg clothing and rubber or vinyl gloves.

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2. Use protective skin creams on exposed areas.
3. Wear safety glasses.
4. The work area should have adequate ventilation.
5. Throw away empty resin and hardener containers. Do not reuse.
6. Read Liquid Surface Creations™ product literature and label instructions on containers before beginning the job.
7. Wash hands before eating, before relief period, and after work.
8. If material comes in contact with skin, wash with soap and water.
9. Clean contaminated tools and work gloves with Methylated Spirits, acetone or discard after use to avoid using any solvent on the job.
10. When cutting, trimming or sanding cement sheet or other substrates coated with cured LSC wear an appropriate dust face mask and eye goggles.

Although Liquid Surface Creations Pty Ltd has taken every precaution to insure that all of its coatings are of the safest and low odor types, prolonged or frequent skin contact may cause dermatitis for some individuals. Most persons can work with these materials for some time without taking extraordinary precautions and not experience any skin irritation. Persons who do break out with skin irritations are to be considered sensitized and should be removed from work involving these resin products.

Dermatitis can be completely avoided by use of proper equipment and safe handling techniques.

Wearing impervious gloves, eye goggles and long sleeve clothing during mixing and application will prevent skin and eye contact and reduce the requirement to use hazardous solvents for clean up. The dry coating is totally non-toxic and contains no dangerous products. Normal safety precautions should be taken when cutting, grinding, sanding or filing the dry product. Use of a dust mask and eye goggles is recommended during this process.

The product is a strong adhesive and will bond anything that becomes wet with the liquid coating. Clean up spills immediately with Methylated Spirits or Nutech Epoxy Thinners. These Thinners are highly flammable. Avoid Thinner contact with naked flames or ignition sources. Read “Safety Directions” on the containers before use. Refer to Liquid Surface Creations™ & Thinners Material Safety Data Sheets for additional safety and user information.

Kitchen Splashbacks, Bench Tops & Fire Safety

Where a kitchen splashback or bench is installed behind a gas or open flame cook top, special precautions are required to protect combustible surfaces including the bench top, wall and building structures underneath decorative surfaces.
Australian Standard AS 5601 - 2004 Gas Installations applies to new installations, alterations and extensions commenced after the 4th November 2004. Under Clause 5.2.5 of the standard appliances (cook tops) must be installed in accordance with the Manufacturer’s instructions. These instructions normally specify the distance between the nearest burner to an adjacent vertical combustible surface (wall).

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The Australian Standard AS 5601 - 2004 Gas Installations also states that protection is required under Clause 5.12.1.1 to ensure that the surface temperature of a combustible surface does not exceed 65 Degrees C. above the ambient temperature. For example, a 200mm separation between the nearest burner and any combustible material is required where a toughened glass or stainless steel splashback is installed to comply with Clause 5.12.1.1.

Glass and steel products conduct heat very well and surfaces behind them such as timber backing or framing could be heated to the point of combustion, unless suitable insulation or adequate separation distances are provided.

Liquid Surface Creations™ applied on a 6mm compressed cement board such as Villaboard™ is non combustible and it is not a good heat conductor. However, the surface that a Liquid Surface Creations splashback is glued to might be combustible for the purpose of the Australian Standard e.g., timber framing or plasterboard etc.

Independent testing is being conducted to write complete installation specifications for this product adjacent to Cooktop Installations. Refer to our Web Site or contact your supplier for the latest advice.

Colours & Effects

Initially only the liquid coating (Part A & Part B) will be available in a limited colour range;

Standard Colours, White♣ & Metallic Effects*

Snow White♣	Lilac Delight	Spearmint Fun
Silver Rocket	Water Melon	Liquid Copper*
Almond Chino	Licorice Surprise	Glass Green/White
Deep Sea Blue	Molten Pewter	
Aqua Marine	Golden Treasure	

Special Colours

Later this year a full range of colours will be available by order.

The complete range of colours will include reds, greens, yellows, pinks, purples, oranges, blues, grey and black in infinite shades with special effect and colour enhancements pigment additives.

Subtle mother of pearls with pink, gold and yellow hues and luster's are also available including the pure and very elegant Snow White. There is a full range of molten glossy metallic effects including silver, aluminium, pewter, blue metal, copper, bronze, bright gold and antique gold. There is also a range of special colour change pigments.