Lesa System’s has been producing high-end polished concrete floor solutions for commercial, industrial, institutional, governmental and residential use for over 16 years. Throughout this time we’ve partnered with the Convergent Group from Belgium and American supplier Metzger McGuire to bring you the very best concrete floor joint fillers and finishes the world has to offer.

We develop, we innovate, we lead.
We are incredibly passionate about all things concrete, yet we understand that it takes both time and effort to achieve the perfect polished concrete floor finish.

That is why we’ve brought two of the world’s best products together in one easy-to-follow guide to explain how you and your installer can achieve and maintain your polished concrete floor now and for many years to come.

CONTENTS

Commercial Floor Joints 1
Why We Chose Lithium Based Densifiers And Sealers 3
Our Four High-End Concrete Floor Finishes 3
High-End Polished Concrete Floor Finishes 4
Choosing The Right Floor Protection System 8
Protecting Your Polished Concrete Floor 10
Metzger McGuire Joint Fillers And Repair Products 14
Skudo Temporary Surface Protection 16
COMMERCIAL FLOOR JOINTS

Responsibility for correction of filler separation is frequently a source of conflict on projects. The applicator’s defence is that they filled the joint that existed, and should not be held responsible for shrinkage of the concrete. The owner’s position is that they paid to have the joints filled and protected, and wants them traffic-ready and durable. Both arguments are valid. Project specifications should be clear on responsibility for separation correction, and the repair of any edge spalling that occurs due to separation. It should not be part of a contractor’s normal one year warranty because separation itself does not constitute workmanship deficiency.

Some specifications ask that the bidder include in their price a call-back after 6 months to correct separations. Other specs ask for a unit price “add” for correction. Still others make correction the responsibility of the facility owner. All these options offer negative and positive aspects since nobody can predict the extent or severity of correction.

The same conflict can arise when joint fillers become distressed or loose due to “rocking slab” conditions. Rocking slabs are caused by curl. If slab panels deflect under load, the filler will be sheared off at its bond points. Rocking slabs can also result in severe joint edge deterioration as hard wheels hit the adjacent panel edge. Correction of the filler at curled joints, and/or spalls, is wasted money unless the offending panels are “stabilised.”

The most common means of stabilising slabs is to fill the voids beneath the panels with a grout or other supportive materials. Certain polyurea fillers are now being used for this process due to their rapid set time, often allowing for the return of full traffic within hours.

If the rocking is minimal, correction can sometimes be achieved by gravity-flowing a thin semi-rigid into the joint. If the penetration is substantial, the cured semi-rigid filler can create enough friction against the joint walls to reduce or eliminate vertical deflection. Gravity-filling works best in sawn contraction joints where it can fill the voids between the irregular surfaces of the crack.

FILLER SEPARATION CORRECTION METHODS

- **EPOXY OPTION #1**: Use knife or narrow tool to loosen debris. Blow/vacuum clean. Fill (overfill) voids with polyurea or epoxy and allow to set into solid. Razor off flush.
- **EPOXY OPTION #2**: Saw cut out top 13mm of epoxy. Blow/vacuum clean. Fill (overfill) channel with same epoxy or polyurea. Allow to set into solid and razor off flush.
- **POLYUREA SOLE OPTION**: Use knife or narrow tool to loosen debris. Blow/vacuum clean. Fill (overfill) voids with polyurea and allow to set into solid. Razor off flush.

EPOXY OPTION #1

Use knife or narrow tool to loosen debris. Blow/vacuum clean. Fill (overfill) voids with polyurea or epoxy and allow to set into solid. Razor off flush.

Saw cut out top 13mm of epoxy. Blow/vacuum clean. Fill (overfill) channel with same epoxy or polyurea. Allow to set into solid and razor off flush.

Use knife or narrow tool to loosen debris. Blow/vacuum clean. Fill (overfill) voids with polyurea and allow to set into solid. Razor off flush.

ROCKING SLABS CAN SHEAR OFF FILLER

DEFLECTION

Semi-rigid filler

Gravity-flowing thin semi-rigid into joint can sometimes restore load transfer.
In some cases filler distress and edge spalling may appear to be the result of normal slab shrinkage, when in fact the actual cause is improper filler installation. One sign of poor installation is when the top of the filler has dropped below the floor surface. This usually turns out to be a case of the filler not being full depth. If the filler has broken bond from both walls, even though the separations are very thin, it could indicate that the joint was not properly cleaned and the filler was not adhered to the concrete.

It is the author’s opinion that the repair of spalled joints should be initiated before they begin to adversely affect facility operations (cause wheel or vehicle damage, etc.). But it is also wise to defer the repairs until the slab shrinkage rate has significantly slowed, and the joint dimension appears stable. The ideal time to perform repairs is in the winter months when joints will likely be at their widest point due to thermal considerations.

The repair procedure for spalled joint edges is dictated by the underlying cause of the damage, and the width of the spall. The edges of saw cut joints can sometimes deteriorate because of micro-fracturing resulting from a faulty sawing operation. Edges of construction joints may be spalling because they lacked adequate densification during troweling, were inherently weak due to inadequate curing, or the top surface of the slab is showing signs of delamination.

For spalls with an overall width of up to 13mm, make a 13mm to 25mm deep saw cut just beyond the outer point of spalling, remove the concrete and filler between the cuts, and refill with a semi-rigid filler. For spalls 13mm to 25mm wide follow the recommendations of the filler manufacturer. Some epoxy manufacturers will recommend field-modifying their semi-rigids with silica sand to increase its cured hardness. For spalls wider than 25mm it is usually recommended that the edge be rebuilt with a “structural” epoxy grout. A saw cut can be made through the cured structural epoxy to recreate the joint, which is then filled with a semi-rigid. In some cases the best repair filler may be a polyurea, whose fast-set properties will allow an earlier return of vehicle traffic. Their negative is that they cannot be ground or sanded. Other times an epoxy may be the best choice, since they offer longer working times, a more flush repair, and can be ground level.
WHY WE CHOSE LITHIUM BASED DENSIFIERS AND SEALERS

All concrete hardeners and densifiers provide concrete surface hardening, dust-proofing and concrete floor sealing, as a result of a chemical process between the silicate and calcium in the concrete substrate.

The silicate chemical formulations are derived from sodium, potassium, magnesium, and the newest from lithium. The difference between the type of silicanate is the size of the molecules, sodium (the largest), potassium, magnesium and lithium (the smallest).

The size of the molecule is crucial as it determines how deep the hardener will penetrate the concrete surface. Lithium silicate evenly reacts, filling empty pores with no inconsistencies or weak points on the concrete surface. Sodium and potassium-based hardeners, however, respond inconsistently creating weak surface spots that will eventually cause those areas to deteriorate and dust.

OUR FOUR HIGH-END CONCRETE FLOOR FINISHES
Inspired By Our Own Rivers And Beaches

NATURAL BOULDER
HIGH-END POLISHED CONCRETE
No stone no grinding

PEPPERED SAND
HIGH-END POLISHED CONCRETE
Very light stone exposure

RIVER STONE
HIGH-END POLISHED CONCRETE
Light stone exposure

PEBBLE BEACH
HIGH-END POLISHED CONCRETE
Heavy stone exposure
Natural Boulder requires no mechanical grinding or honing. The floor is cleaned, densified and protected.

**APPLICATION**

Dry curing using concrete curer and densifier - Dry curing using Pentra-Sil® HD+C applied to Lesa Systems 2017 Ltd specifications at the recommended coverage rate.

Slab placing and finishing - Fill all polished saw cuts with Metzger McGuire Spal-Pro RS 88 polyurea joint filler in selected colour and depth to manufacturer’s installation instructions.

Scrub floor with a mechanical scrubbing machine equipped with 400 grit ETC Gorilla pads. Apply Pentra-Sil® (244+) to Pentra-Sil® (244+) specifications. Allow to dry, and then scrub the floor.

When dry, apply Pentra-Guard™ HP, a minimum of three coats to Pentra-Guard™ HP specifications. The next day, or when dry burnish with a high-speed burnisher equipped with an ETC Gorilla 800 grit burnishing pad. A 1500 grit burnishing pad maybe required, depending on the desired effect.

Apply Pentra Finish only when the slab is at least 28 days old.

**WHAT YOU WILL NEED**

- Pentra-Sil® HD+C
- Spal-Pro RS 88
- Pentra-Sil® (244+)
- Pentra-Guard™ HP
- Diamond by Gorilla® - 400 Red
- Diamond by Gorilla® - 800 White
- Diamond by Gorilla® - 1500 Yellow

Full compliance to ISO 9001:2008 - ISO 14001:2004 and EMAS
Peppered Sand is mechanically polished just enough to clean it with virtually no aggregate exposed. The floor is densified and protected.

**APPLICATION**

Dry curing using concrete curer and densifier - Dry curing using Pentra-Sil® HD+C applied to Lesa Systems 2017 Ltd specifications at the recommended coverage rate.

Slab placing and finishing - Fill all polished saw cuts with Metzger McGuire Spal-Pro RS 88 polyurea joint filler in selected colour and depth to manufacturer’s installation instructions.

Apply Pentra-Sil® (244+) to Pentra-Sil® (244+) specifications. (If the floor is to be left for a period of time, a coat of Pentra-Sil® HD+C can be applied for protection).

Continue with 100 resin through to 800 to 1500 resin grit. A fine coat of Pentra-Sil® (244+) diluted with water as much as 50% can be mopped onto the floor evenly between polish passes.

Apply Pentra Finish only when the slab is at least 28 days old.

**WHAT YOU WILL NEED**

- Pentra-Sil® HD+C
- Spal-Pro RS 88
- Pentra-Sil® (244+)
- Pentra-Guard™ HP

Diamond by Gorilla® - 800 White
Diamond by Gorilla® - 1500 Yellow
Diamond Gorilla Pad

Full compliance to ISO 9001:2008 - ISO 14001:2004 and EMAS
River Stone is mechanically ground to expose a small amount of aggregate. The floor is densified and protected.

**APPLICATION**

Dry curing using concrete curer and densifier - Dry curing using Pentra-Sil® HD+C applied to Lesa Systems 2017 Ltd specifications at the recommended coverage rate.

Slab placing and finishing - Fill all polished saw cuts with Metzger McGuire Spal-Pro RS 88 polyurea joint filler in selected colour and depth to manufacturer’s installation instructions.

Grind the floor with 70 metal then 120 metal grit. After the 120 metal grit, apply Pentra-Sil® (244+) to Pentra-Sil® (244+) specifications.

If the floor is to be left for a period of time, a coat of Pentra-Sil® HD+C can be applied for minimal protection. For total protection cover floor with a breathable protection. (Over board or similar).

**Second Stage**

When the floor is dry, continue with the resin bonds starting at 50 resin grit. If the floor still needs grouting apply Pentra-Sil® PCF ahead of grinder equipped with 50 resins. Following with 100 resin through to 800 to 1500 resin grit. A fine coat of Pentra-Sil® (244+) diluted with water by as much as 50% can be mopped onto the floor evenly between polish passes.

When final grit is reached, clean floor and apply 2 or 3 coats of Pentra-Guard™ HP to Pentra-Guard™ HP specifications. The next day or when Pentra-Guard™ HP is dry burnish with a LPG/petrol burnisher equipped with a 800 to 1500 grit ETC Gorilla pad.

**WHAT YOU WILL NEED**

- Diamond by Gorilla® - 800 White
- Diamond by Gorilla® - 1500 Yellow
- Pentra-Sil® HD+C
- Spal-Pro RS 88
- Pentra-Sil® (244+)
- Pentra-Guard™ HP
- Diamond Gorilla Pad

Full compliance to ISO 9001:2008 - ISO 14001:2004 and EMAS
Pebble Beach is mechanically ground, then hardened, polished, sealed and finally burnished.

APPLICATION

Dry curing using concrete curer and densifier - Dry curing using Pentra-Sil® HD+C applied to Lesa Systems 2017 Ltd specifications at the recommended coverage rate.

Slab placing and finishing - Fill all polished saw cuts with Metzger McGuire Spal-Pro RS 88 polyurea joint filler in selected colour and depth to manufacturer’s installation instructions.

First Stage

For new slabs, grind 7 to 10 days (minimum) after placing the concrete. Grind the floor to expose the aggregate using a 30-grit metal bonded diamond. Aggregate should be consistent over the surface.

After desired stone exposure is reached, continue to 70 metal then to 120 metal grit. After the 120 metal grit, apply Pentra-Sil® (244+) to Pentra-Sil® (244+) specifications.

If the floor is to be left for a period of time, a coat of Pentra-Sil® HD+C can be applied for minimal protection. For total protection cover floor with a breathable protection. (Over board or similar).

Second Stage

When floor is dry, continue with the resin bonds starting at 50 resin grit. If the floor still needs grouting apply Pentra-Sil® PCF ahead of grinder equipped with 50 resins. Following with 100 resin through to 800 to 1500 resin grit. A fine coat of Pentra-Sil® (244+) diluted with water by as much as 50% can be mopped onto the floor evenly between polish passes.

When final grit is reached, clean floor and apply 2 or 3 coats of Pentra-Guard™ HP to Pentra-Guard™ HP specifications. The next day or when Pentra-Guard™ HP is dry burnish with a LPG/petrol burnisher equipped with a 800 to 1500 grit ETC Gorilla pad.

WHAT YOU WILL NEED

- Pentra-Sil® HD+C
- Spal-Pro RS 88
- Pentra-Sil® (244+)
- Pentra-Sil® PCF
- Pentra-Guard™ HP
- Diamond Gorilla Pad

Diamond by Gorilla® - 800 White
Diamond by Gorilla® - 1500 Yellow

Full compliance to ISO 9001:2008 - ISO 14001:2004 and EMAS
Convergent superior lithium technology provides unmatched performance in protecting substrates against wear, dusting, sweating, efflorescence, scaling, surface ASR and damaging alkali.

It forms a superior protective surface layer that is breathable, dense and abrasion-resistant. It creates a stronger, more impenetrable, and resistant finish that is dust-proof and resistant to staining and deterioration. Reduces maintenance, cleaning costs and costly repairs and conforms to “Green Leaf / LEED Qualifying” and is one of the industry’s most environmentally friendly coatings.

Pentra-Sil’s unique reactive chemistry forms an insoluble bond with the free lime forming tri-calcium silicate compounds that bind together micro-particles (lime and fine aggregate). They form a non-expansive gel that rapidly cures into inorganic cement that is stronger and more durable than the cement itself. Pentra-Sil’s unique atomic structure (Particle Size) and lower viscosity to conventional treatments provide superior penetration within the capillary channels providing a more consistent and uniform cure.

**PENTRA-SIL NL (HD+C)**

**CONCRETE HARDENER, SEALER, DENSIFIER AND CURING AID**

HD+C (hardening/densifying/curing) combines advanced nano lithium silicate hardening with an engineered non-ionic emulsion for curing. It meets and exceeds modified ASTM C156 and provides a single no-rinse application. It is a sound hardening, densification and curing membrane that protects and cures the concrete slab during construction. It is also an environmentally safe, waterborne system.

Available in 20L, 200L, 1000L.

**PENTRA-SIL (NL) - NANO LITHIUM**

**CONCRETE HARDENER, SEALER AND DENSIFIER**

Pentra-Sil (NL) treatment forms a hard, dense protective surface layer that is breathable, dense and abrasion-resistant. The hardener, sealer, densifier creates a stronger, more impenetrable, and better-looking finish (satin - glossy) that is dust-proof and resistant to staining and deterioration.

Available in 5L, 20L, 200L, 1000L.
PENTRA-SIL (244+)
SALT PROTECTION, DUST-PROOFER, HARDENER, SEALER AND DENSIFIER

Pentra-Sil (244+) hardens, seals and densifies concrete and masonry surfaces. It maintains a salt ion screen and water-repellent characteristic even through regular maintenance, pressure washing, pedestrian and traffic wear. Substrates become resistant to staining, spalling, weathering, efflorescence, water intrusion, fungi and mildew, deterioration, freeze-thaw scaling, and reinforcing steel corrosion.

Available in 5L, 20L, 200L, 1000L.

PENTRA-SIL (PCF)
LIQUID PORE AND MICRO-CRACK FILLER FOR CONCRETE GRINDING AND POLISHING

Pentra® (PCF) Liquid Pore and Micro-crack Filler for concrete grinding and polishing, mixes with the dust created during concrete grinding.

The reactive treatment quickly cures into a durable, smooth surface that readily accepts coloured stains, dyes and hardeners, automatically fills pinholes, small air voids, micro-cracks and other imperfections in the concrete surface.

Available in 5L, 25L.

PENTRA FINISH (HG)
ADVANCED HIGH GLOSS, STAIN AND WEAR RESISTANT FINISH COAT

Pentra-Finish (HG) is a patented, high-gloss, stain and wear-resistant finish for improving the sheen, hardness and chemical resistance of natural and cast stone, terrazzo, masonry, and other cement-based surfaces. This water-based, lithium fortified chemical polish dries quickly to a clear, hard, micro coating that tenaciously bonds and reacts with the substrate forming an insoluble bond. This novel treatment eliminates the need for floor waxes, liquid polishes and conventional resin-based coatings.

Available in 5L, 25L.

PENTRA-GUARD (HP)
HIGH PERFORMANCE INDUSTRIAL FLOORING SURFACE HARDENER AND PROTECTIVE CLEAR COAT

Pentra-Guard (HP) is the optimum coating system designed for harsh and high abuse conditions. This advanced, versatile, low VOC treatment offers high-durability and bond strength, and the ability to withstand UV, abrasion, chemical spills and heavy traffic. This industrial grade treatment provides rapid curing and attractive, glossy finish for facilities that require maximum protection and little-to-no downtime.

Available in 5L, 25L.

Pentra Guard (HP) does not significantly decrease the coefficient of friction (in some cases it may enhance slip resistance). The slip resistance is largely determined by the quality of the original floor. A ground and polished floor will generally have less resistance than a burnished or broom finished floor. All concrete floors will have less resistance when wet. Any spills should be cleaned up immediately.
The best way to protect your investment with the Lesa Pentra Floor system is through regular prescribed maintenance.

**CONCRETE MAINTENANCE PADS - DIAMOND BY GORILLA®**

Diamond by Gorilla® is a system of floor pads that cleans and polishes concrete, terrazzo and natural stone floors mechanically without the use of chemicals. ETCs Diamond by Gorilla® system consists of floor pads impregnated with billions of microscopic diamonds that will transform any dull, worn floor into a clean, shining floor. The diamonds come in different sizes, creating different levels of aggressiveness ideal for cleaning and polishing. This system can be used on surfaces such as concrete, terrazzo, marble, ceramic and other natural stones as well as VCT when using the 1500 and up polishing pads.

**BENEFITS**

- Works on all types of floor machines – wet or dry - including conventional, auto scrubbers and high speed machines
- No dyes added and no colour transfer due to unnatural colouring
- No need for waxes, sealers, strippers or other chemicals
- High-level of quality provided only by ETC
- Take dull floors to a high clean shine
- Easy-to-use
- 40% more durable than competitive pads
- More heat generated
- Quick learning curve
- Save time and money

**CHOOSING THE RIGHT DIAMOND POLISHING PAD**

<table>
<thead>
<tr>
<th>GRADE</th>
<th>APPLICATION</th>
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<tbody>
<tr>
<td>200 BLUE</td>
<td>Blue Diamond by Gorilla® pad is our most aggressive diamond polishing pad. Perfect for damaged floors or for use after grinding, this pad is designed to remove discolouration and scratches to restore the look of your floors while providing a high-clean shine.</td>
</tr>
<tr>
<td>400 RED</td>
<td>Red Diamond by Gorilla® is slightly less aggressive and is also ideal for damaged floors or for use after grinding, and it produces a matte or satin finish.</td>
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<tr>
<td>800 WHITE</td>
<td>White Diamond by Gorilla® is perfect for an intermediate step or as a first step in floors that haven’t been maintained. This pad cleans surfaces, removes small scratches and leaves a slightly reflective finish.</td>
</tr>
<tr>
<td>1500 YELLOW</td>
<td>Yellow Diamond by Gorilla® is ideal for maintained floors and cleans and prepares them for high polish. This pad can be used as a regular maintenance pad or to remove fine scratches and conditions concrete and stone floors for final polishing.</td>
</tr>
<tr>
<td>3000 GREEN</td>
<td>Green Diamond by Gorilla® is used for daily maintenance, providing and maintaining a wet look shine that restores the appearance of concrete, stone, tile, terrazzo and VCT floors.</td>
</tr>
</tbody>
</table>
Convergent Group, the founding company of the Pentra Flooring System have spent many years perfecting the maintenance programmes for concrete floors, and have focused on providing the best solutions for their densifier and finishing products.

Through regular cleaning with a scrubber, hard nylon brush and the Pentra Cleaning range, a deep and lasting shine can be maintained for years to come. Each time the floor is cleaned, the reaction in the chemical in the top of the concrete is restarted.

**MAINTENANCE PROCEDURE**

**DAILY**

For all finishing products such as densifiers like Pentra Sil (NL) or Pentra Sil (244+), we recommend using Pentra-Clean (DC) - Daily Cleaner.

On floors with a high-gloss finish (Pentra-Guard HP or Pentra-Finish HG), we recommend using Pentra-Clean (HPC).

Please be aware neither of these products is designed to remove rubber marks and oil.

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</table>
| 1-2 MONTHS | We recommend performing deep maintenance using Pentra-Clean (CR). This product will function as a deep clean and renovate the surface using its lithium-based detergent. For heavily soiled floors this process will need to be performed more regularly.

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| 9-12 MONTHS | Once the floor has taken some wear, it may begin to show visible scratches, and it is then time to reapply Pentra-Guard (HP) to rebuild the top protective layer of the floor. One coat is sufficient unless there is deep scratching. Once Pentra-Guard (HP) has been applied to the floor, it will require a burnish to revive the shine to new.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>CONTAINER</th>
<th>CONSUMPTION</th>
<th>SQM²</th>
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</thead>
<tbody>
<tr>
<td>Pentra-Clean (DC)</td>
<td>5L Pail</td>
<td>250ml mixed with 25L water</td>
<td>With this total quantity 300-500m²</td>
</tr>
<tr>
<td>Pentra-Clean (HPC)</td>
<td>5L Pail</td>
<td>250ml mixed with 25L water</td>
<td>With this total quantity 300-500m²</td>
</tr>
<tr>
<td>Pentra-Clean (CR)</td>
<td>5L Pail</td>
<td>60ml mixed with 25L water</td>
<td>Depending on the level of grime 60-200m²</td>
</tr>
<tr>
<td>Pentra-Guard (HP)</td>
<td>5L Pail, 25L Pail</td>
<td>Do not mix with water</td>
<td>One coat 30m²</td>
</tr>
</tbody>
</table>
PROTECTING YOUR POLISHED CONCRETE FLOOR

PENTRA-CLEAN (DC)
DAILY CLEANER
Keep your surfaces looking beautiful with Pentra-Clean® (DC) Daily Cleaner. It is a pH neutral cleaner for use on floors and other hard surfaces where there is water. The unique formula quickly removes soils and greasy messes, yet is completely safe and easy-to-use. Pentra-Clean® (DC) Daily Cleaner contains no ammonia, no acid, and a pH neutral formula. It is safe to use on all types of concrete, terrazzo and natural stone or tiles surfaces.

KEY BENEFITS
- Deep penetrating and lifting formula helps breakdown and remove stains, dirt, grease and grime
- pH neutral formula does not contain acid, alcohol or ammonia

USES
INTERIOR FLOORING NON-POROUS GROUND, HONED, POLISHED OR BURNISHED CONCRETE SURFACES
Residential: Concrete floors and garages.

APPLICATION
Before application, always do a small test sample in a less-visible area to be sure there are no variables or contaminants in the substrate that may be incompatible with this product.

IMPORTANT NOTE: Daily cleaning and periodic deep cleaning are recommended to prolong the life of your surface. Improper methods and products used for daily and periodic deep cleaning are probably the leading causes of damage to commercial hardwood floors. Avoid water, all-purpose cleaners and harsh chemicals (which can damage the wood or dull the finish). Also, don’t use dust mop treatments, oil soaps, silicone and acrylics which can leave a residue and adversely affect the adhesion of a coat of finish in the future.

PENTRA-CLEAN HPC
HIGH POLISH CLEANER
Pentra-Clean® (HPC) is a mild but effective cleaner designed for high-quality polished floors. This new, environmentally-friendly product is based on innovative surfactant chemistry and cleans and polishes in a straightforward operation. When used for cleaning polished concrete surfaces, the material will provide additional lustre with regular cleaning cycles. This material will not harm the exposed concrete flooring finish or any surrounding surfaces. Pentra-Clean® (HPC) gives off a mild, pleasant odour. Pentra-Clean® (HPC) reduces labour and maintenance costs while improving the appearance of the surface.

KEY BENEFITS
- Highly concentrated
- Safe for all floors
- No harsh chemicals
- Low VOC
- Environmentally friendly
- Biodegradable

USES
Pentra-Clean® (HPC) is ideal for use on polished concrete floors, non-porous highly polished surfaces, finished stone, Terrazzo (1500 grit profiles and above).

APPLICATION
We recommend testing the product on a small area of the intended floor to determine the suitability and desired results. Let the surface dry before inspecting, testing and approving the desired application.
PENTRA-CLEAN (CR)
DAILY CLEANER

Pentra-Clean® (CR) penetrates and embeds the substrate with reactive, internally cross-linked Nano-Lithium polymers and a blend of detergents that help harden and protect the surface. Unlike any other cleaner, it provides unmatched clarity as it lifts and cuts through dirt and embedded residue. Additionally, this product enhances and restores dulled and dirty floors, setting it apart from conventional cleaners.

KEY BENEFITS
- Quickly and effortlessly removes dirt and other surface soils.
- Reduces the need for periodic buffing or burnishing.
- Helps resist scuffing, scratching, water spots, and black heel marks.
- Amplifies overall gloss and clarity with Nano-Lithium polymer technology.
- Leaves no residue that will dull or damage a floor or finish.
- Certified by the National Floor Safety Institute (NSFI) as “High Traction” under ANSI B101.1 W et Test.
- Pleasant lemon fragrance

USES
Sweep or vacuum to remove loose materials from the surface to be cleaned. Pre-clean oil spots or other deep stains with the appropriate cleaner.

APPLICATION
Application instructions: Before use, read “Preparation” and “Safety Information”. Always test for the suitability, dilution rates and desired results before application. Test using the following application instructions. Let the surface dry thoroughly before the inspection.

Equipment: This product is concentrated for use with an automatic floor scrubber. Use soft brushes/soft pads. Never use aggressive brushes or pads on polished concrete. Dilute 100ml of product 50 litres of freshwater or add 100mls to the automatic floor scrubber water tank.

1. Apply with an automatic scrubber.

2. Routine Cleaning: Scrub the floor with squeegee down and vacuum/squeegee engaged. Remove cleaning residue. Deep Cleaning—Double scrub: Apply cleaner and scrub floor with brushes/pads engaged, but vacuum up. Allow product to dwell on surface without drying for 15 to 20 minutes, then scrub again with the brushes on and vacuum/squeegee engaged. Add more cleaner as necessary.

3. Buff the cleaned floor with a white pad to increase shine.
Lesa is the authorised distributor of Metzger McGuire world-leading range of industrial floor joint fillers and repair products in New Zealand and Australia.

Metzger McGuire has led the way in the development of concrete floor joint protection systems for more than 45 years.

Metzger McGuire floor joint fillers and concrete repair products are specially engineered to provide optimum protection in a range of concrete floor settings from heavy duty warehouse/distribution centre facilities to the stained and polished concrete floors widely used in retail stores and schools.

**SPAL-PRO RS 88**

Spal-Pro RS 88 is a rapid setting polyurea polymer liquid of 100% solids content. When cured it is a semi-rigid, rubber-like solid with a Shore Hardness of A88-92. It was developed to fill and protect joints in trafficked industrial and retail concrete floors. Its primary function is to support such traffic and protect joint edges. It is also ideal for filling random cracks in industrial floors. Spal-Pro RS 88 contains no VOCs and comes in a range of colour-fast colours (UV stable).

Product supplied in 600ml dual cartridges or bulk. Pumps available for hire or purchase for the bulk product.

**SPAL-PRO 2000**

Spal-Pro 2000 is a rapid setting two-component polyurea, which cures to a charcoal grey solid with a hard rubber-like hardness of A-95. It is ideal for repair of spalled joints, filling random cracks and patching gouges, holes and surface defects. It is used to fill and protect joints in industrial concrete floors that are subject to hard wheels and heavy loads. Its primary function is to support such traffic without deflecting. It is however not UV resistant, and UV rays may cause discolouration. Can be used in ambient or freezer applications as low as -35°C.
RAPID REFLOOR

Rapid Refloor is a two-component polyurethane/polyurea hybrid. When cured, it results in a rigid structural polymer with a Shore D Hardness of 70-75. It was developed to repair random cracks and surface spalls/pop-outs and other surface defects in industrial concrete floors that are subject to wheeled traffic. It should not be used as a joint filler. It should not be used below 0°C. The floor is ready for trafficking in 15-30 minutes. It is virtually odourless.

ARMOUR HARD XTREME

Armour Hard Xtreme is a two-component epoxy system developed for the repair of industrial concrete floors subject to hard wheeled vehicle traffic. As a mortar, it can be used for large spall repairs/rebuilding of joint shoulders, as a topping for delaminated slabs, or for filling potholes, gouges, ruts and pop-outs. It can be used down to -7°C. It is quick setting - foot traffic in one hour, normal traffic in two hours. It has superior wear and impact resistance. It is low odour.

Today’s floors demand joint fillers and repair products available in a range of colours to both protect and enhance the floor while offering cost-effective and durable solutions. Metzger McGuire’s Colorfast Line is the perfect solution when aesthetics are just as important as durability and longevity.

* Colours supplied locally. All other colours are available through special order.
SKUDO TEMPORARY SURFACE PROTECTION

TEMPORARY SURFACE PROTECTION - SKUDO HAS YOU COVERED

Skudo provides temporary coverings to protect finished surfaces from construction site damages, spills and stains.

SKUDO (HT) - HEAVY TRAFFIC COMMERCIAL SYSTEM

The Commercial System is a two-part system consisting of a base coat and mat, ideal for protecting substrates on large commercial jobs for up to 12 months. Most commonly used on concrete and terrazzo, the Commercial Mat System is also used on tile, marble, stone, hardwood, epoxies and more. It comes in Heavy and Medium Traffic Grades. Note – The HT Commercial System can be used outside as it has the most superior UV protection of any Skudo product.

SKUDO TACK-MAT (HT), (LT), (HI)

Tack-Mats are the most stain resistant product with a virtually impenetrable laminate coating on the back of the mat. Tack-Mat is a simple peel and stick application – the release paper is pulled off to expose a sticky backing which creates a strong bond to most substrates.

Construction Tack-Mat is available in (HT) - Heavy Traffic, (LT) - Light Traffic, and (HI) High Impact grades (in a variety of sizes). Tack-Mat provides interior protection for commercial and residential projects for up to 12 months.

SKUDO TACK-MAT EDGE PROTECT

Construction Tack Mat also includes Edge Protect. Edge Protect is specifically designed for easy application around edges. It is perfectly sized to protect indoor framing, windows, ledges, railing, door jams and more. It features a self-stick surface - simply peel the backing paper and apply.
SKUDO ALL-TERRAIN MAT
Skudo All-Terrain Mat provides an extremely durable, safe, slip-proof surface ideal for use on uneven, gravel or muddy construction sites. Bright, thick All-terrain Mat indicates a designated pathway for workers, contractors and visitors, protecting them from hazards.

Skudo All-Terrain Mat provides a very high level of slip resistance for both wet and dry conditions. All-Terrain Mat offers excellent durability and resistance to heavy wear and tear.

SKUDO BOARD (HT) - HEAVY TRAFFIC
Skudo Board HT is a heavy duty, synthetic, rigid board that provides superior protection under forklift and general construction traffic. Use wherever you would protect your surfaces with Masonite or plywood. Ideal for use under work stations - pipe cutting, finish carpentry, painting. Skudo Board HT also features a unique fabric underside to make it safer for surface types like tile, stone, marble vinyl, hardwood, etc., without fear of damage, chips and scratches. The textured surface of Skudo Board HT is fire retardant, water resistant and resists curling and warping - reducing safety hazards on your jobsite.

SKUDO CARPET COVER
Skudo Carpet Cover is a laminated commercial grade, strong and durable protection layer for foot traffic and spill and stain protection with excellent resistance to tearing and ripping. It is specifically designed to provide high-strength and performance for carpet protection during construction. Skudo Carpet Cover is perfect for commercial and residential applications, including stairs and high traffic areas. Unlike other products, it features a proprietary adhesive that does not leave a sticky residue on the protected surface. Skudo Carpet Cover can provide protection for up to 3 months.

SKUDO GLASS ADVANCED
Skudo Glass Advanced is the perfect solution for all construction projects that require temporary window and glass protection from start-to-finish. Tough enough to withstand cement and paint splatter. Skudo Glass Advanced will protect valuable glass and frames for up to 12 months.
THE WORLD’S FINEST
HIGH-END POLISHED CONCRETE

We develop, we innovate, we lead.

Send us your specifications today