INFINITY EFFECTS

SURFACES FOR A BETTER TOMORROW
INNOVATION
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SUSTAINABILITY

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P.HB POLY SCREED

FAST-DRYING POLYASPARTIC HYBRID SCREED SYSTEM

INSTALL SYSTEM 1

PROFESSIONAL INSTALLATION GUIDE

R.S.P PRIMER | CRM MESH REINFORCEMENT | P.HB POLY SCREED

A high-performance, seamless polyaspartic hybrid screed system designed for the refurbishment and resurfacing of:

CONCRETE | TILES | COMMERCIAL FLOORS | RETAIL INDUSTRIAL AREAS | DECORATIVE INTERIORS

Developed to provide a smooth, durable and highly bonded resurfacing layer over correctly prepared substrates.



SYSTEM BENEFITS

- FAST DRYING
- HIGH STRENGTH
- SEAMLESS FINISH
- IMPACT RESISTANT
- VERSATILE
- EXCELLENT ADHESION
- UV STABLE

STANDARD SYSTEM



- P.HB POLY SCREED
- CRM REINFORCEMENT MESH
- R.S.P PRIMER
- PREPARED SUBSTRATE
- OPTIONAL DECORATIVE / PROTECTIVE FINISH

PROFESSIONAL SYSTEM

- PREPARATION
- PRIMING
- MESH INSTALLATION
- MIXING
- APPLICATION
- CURING

Correct:

PREPARATION | PRIMING | MESH INSTALLATION MIXING | APPLICATION | CURING

are essential to achieve the intended performance.

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P.HB POLY SCREED SYSTEM

HIGH-PERFORMANCE FLOOR RESURFACING

Infinity Effects P.HB Poly Screed is a polyaspartic hybrid screed system designed to create a smooth, seamless and durable floor finish over correctly prepared substrates.

The system combines:

- **R.S.P PRIMER** for substrate penetration and adhesion,
- **CRM REINFORCEMENT MESH** for reinforcement and additional system stability,
- **P.HB POLY SCREED** for the main resurfacing layer.



SYSTEM PROCESS

PREPARE
Prepare and repair the substrate.

PRIME
Apply R.S.P Primer for adhesion.

REINFORCE
Press CRM mesh into the primer.

SCREED
Apply P.HB Poly Screed to the required finish.

TYPICAL CONCRETE BUILD-UP



- P.HB POLY SCREED
- CRM MESH
- R.S.P PRIMER
- MECHANICALLY PREPARED CONCRETE — CSP 2–3

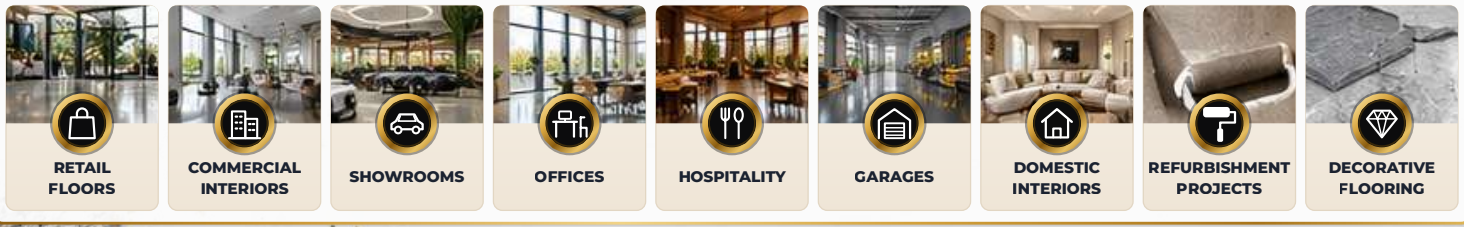
TYPICAL TILE BUILD-UP



- P.HB POLY SCREED
- CRM MESH PRESSED INTO R.S.P PRIMER
- R.S.P PRIMER
- SANDED / DEGREASED / REPAIRED TILE
- SOUND EXISTING TILE SUBSTRATE

SUITABLE APPLICATIONS

Typical applications may include:



IMPORTANT

The performance of the finished system depends heavily upon the condition and preparation of the **underlying substrate.**

Do not use the screed to compensate for an unstable, contaminated or inadequately **prepared floor.**

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PREPARE BEFORE INSTALLATION

Correct organisation helps maintain consistent mixing, application and finish quality.

PREPARE
Organise materials, tools and site.

MEASURE
Accurately plan and check quantities.

CONTROL
Maintain consistent conditions and quality.

SYSTEM MATERIALS

Prepare all required system components before work begins:

- R.S.P PRIMER
- CRM REINFORCEMENT MESH
- P.HB POLY SCREED — PART A
- P.HB POLY SCREED — PART B
- P.HB POLY SCREED — PART C / SCREED MIX

Optional system finishes where specified:

- SPRAY GRANITE
- DECORATIVE FLAKES
- PROTECTIVE TOPCOAT

ESSENTIAL EQUIPMENT

Use suitable professional equipment including:

- Industrial floor grinder
- Suitable diamond tooling
- Edge grinder
- Industrial vacuum
- Mixing drill
- Heavy-duty mixing paddle
- Clean mixing containers
- Flat steel trowel
- Squeegee
- Rubber grout trowel
- Straight edge
- Scrapers
- Measuring equipment
- Knife/scissors for mesh
- Repair tools
- PPE

MATERIAL CONDITION

Before mixing, ensure materials are:

- CORRECT PRODUCT
- CORRECT COMPONENTS
- CLEAN
- DRY
- UNDAMAGED
- WITHIN STORAGE REQUIREMENTS

SITE CONDITION

Before installation:

- Clear the work area.
- Protect adjoining surfaces.
- Establish an exit route.
- Ensure adequate lighting.
- Confirm ventilation requirements.
- Check substrate condition.
- Confirm repairs are complete.
- Have all materials immediately available.

CONTAMINATION CONTROL

Keep tools and materials free from:

- WATER
- DUST
- OIL
- GREASE
- SILICONE
- SOLVENT RESIDUE
- CURED RESIN
- FOREIGN MATERIAL

Clean equipment is particularly important when working with fast-reacting resin systems.

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STAGE 1

CONCRETE SUBSTRATE PREPARATION

CREATE A SOUND MECHANICAL KEY

Concrete should be mechanically prepared wherever practicable.

INSPECT
Assess the condition of the concrete.

GRIND
Create a mechanical key (CSP 2–3).

CLEAN
Remove all dust and debris.

01 INSPECT THE CONCRETE



The substrate must be:

SOUND | **DRY** | **STABLE** | **CLEAN** | **CONTAMINATION-FREE**

Identify:

- Weak laitance
- Existing coatings
- Oils
- Grease
- Adhesive residues
- Dirt
- Loose concrete
- Cracks
- Holes
- Surface contamination
- Unsound repairs

Any unsuitable material must be removed before proceeding.

02 MECHANICAL PREPARATION



Where available, mechanically grind the concrete to approximately:

CSP 2–3

The objective is to remove surface contamination and weak material while creating a consistent mechanical profile for the resin system.

Pay particular attention to:

EDGES | **CORNERS** | **DOORWAYS**
DRAINS | **REPAIRS** | **PERIMETERS**

03 VACUUM



Following grinding:

INDUSTRIALLY VACUUM THE COMPLETE AREA

Do not leave loose grinding dust on the floor.

04 REPAIRS



Repair:

CRACKS | **VOIDS** | **HOLES**
DAMAGED EDGES | **LOCAL DEFECTS**

before installing the main system.

Repairs must be sufficiently stable and compatible with the subsequent resin system.

05 FINAL CHECK



The prepared concrete should be:

- CLEAN
- DRY
- OPEN-TEXTURED
- STRUCTURALLY SOUND
- DUST-FREE

Do not prime until preparation has been completed satisfactorily.

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STAGE 2

EXISTING TILE PREPARATION

PREPARING SOUND TILE FLOORS FOR RESURFACING

Tile installations require different preparation from open concrete.



INSPECT
Check the condition of the existing tiles.

ABRADE
Remove gloss and create a key.

REPAIR
Remove unsound tiles and repair defects.

01 CHECK TILE CONDITION



Inspect the complete tiled area.

Tiles must be firmly bonded and structurally suitable.

Identify:

- **LOOSE TILES**
- **BROKEN TILES**
- **CRACKED TILES**
- **HOLLOW / UNSTABLE AREAS**
- **DAMAGED GROUT**
- **GREASE OR CONTAMINATION**

02 REMOVE UNSOUND TILES



Remove loose, broken or unstable tiles where required.

Do not bridge over sections that are inadequately bonded to the supporting substrate.

03 FILL REMOVED / DAMAGED AREAS



Fill and level:

- Removed tile locations
- Broken tile areas
- Deep grout joints where necessary
- Local depressions
- Holes and defects

The finished preparation should provide a stable, substantially even base for the reinforced system.

04 DEGREASE



Thoroughly degrease the complete tiled floor.

Particular attention should be given to:

- **KITCHENS**
- **FOOD AREAS**
- **GARAGES**
- **COMMERCIAL FLOORS**
- **HIGH-TRAFFIC AREAS**

Remove all cleaner and degreaser residues before continuing.

05 SAND / ABRADE



Mechanically sand or abrade the tiles to:

- Remove surface gloss
- Improve mechanical adhesion
- Create a uniform key
- Remove remaining surface contamination

Glossy tile surfaces must not simply be coated without adequate preparation.

06 CLEAN



Vacuum thoroughly.

The finished substrate must be:

- **SOUND**
- **ABRADED**
- **DEGREASED**
- **CLEAN**
- **DRY**
- **DUST-FREE**

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STAGE 3

R.S.P PRIMER & CRM MESH

PRIME AND REINFORCE THE SUBSTRATE

The CRM mesh is incorporated into the R.S.P Primer before application of P.HB Poly Screed.



PRIME
Apply R.S.P Primer for adhesion.

EMBED
Place CRM mesh into the wet primer.

REINFORCE
Press the mesh firmly to ensure full contact.

01 PRE-CUT THE MESH



Before mixing primer, measure and cut the CRM mesh to suit the installation area.

Lay out the installation sequence so that the mesh can be placed efficiently while the primer remains workable.

Avoid unnecessarily small pieces.

02 APPLY R.S.P PRIMER



Mix and apply R.S.P Primer in accordance with its current TDS.

Distribute using a:



SQUEEGEE

or



RUBBER GROUT TROWEL

Ensure continuous and consistent coverage.

Avoid:

- **DRY PATCHES**
- **HEAVY POOLS**
- **MISSED EDGES**
- **EXCESSIVE BUILD-UP**

03 PLACE THE CRM MESH



While the R.S.P Primer is still suitable for receiving the reinforcement, place the CRM mesh onto the wet primer.

04 PRESS INTO THE PRIMER



Using the squeegee or rubber grout trowel:

PRESS THE MESH FIRMLY INTO THE R.S.P PRIMER

The objective is to achieve intimate contact between:

SUBSTRATE → PRIMER → MESH

The mesh should lie flat without large wrinkles, folds or raised sections.

05 JOINTS & EDGES



Keep reinforcement consistent through:

- **DOORWAYS**
- **REPAIRS**
- **TILE JOINTS**
- **TRANSITIONS**
- **PERIMETERS**

Do not leave unsupported mesh projecting from the resin system.

IMPORTANT

The reinforcement should become an integrated part of the system rather than simply sitting loosely beneath the screed.

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STAGE 4

MIX P.HB POLY SCREED

CONSISTENT MIXING IS CRITICAL

P.HB Poly Screed is supplied as a multi-component system.

COMBINE
Combine Part A and Part B.

MIX
Mix thoroughly until uniform.

ADD SCREED COMPONENT
Gradually add Part C while mixing.



01 PREPARE THE MIXING AREA



Use:
- Clean container
- Suitable heavy-duty mixing drill
- Correct mixing paddle
- Complete matched components

Never introduce water, solvent or foreign additives unless specifically authorised.

02 COMBINE PART A & PART B



Pour the required/full matched components of:

PART A + PART B

together.

Mix mechanically for a minimum of approximately:

30 SECONDS

or until thoroughly combined.

03 INTRODUCE PART C



Once Parts A and B are fully combined, gradually introduce:

PART C — SCREED MIX

while the mixer continues to operate.

Do not dump all powder into one concentrated location where avoidable.

04 CONTINUE MIXING



Mix for approximately:

2–3 MINUTES

until the material is:
- **UNIFORM**
- **FREE FROM LUMPS**
- **FREE FROM DRY POCKETS**
- **FULLY WETTED**
- **CONSISTENT THROUGHOUT**

Ensure material on the sides and base of the mixing vessel is incorporated.

05 DO NOT OVER-DELAY



Once mixed, proceed directly to placement.
- Do not leave mixed material sitting unnecessarily in the container.

WORKING-TIME CONTROL
Where an Infinity-approved retarder is specified, follow the current product guidance for dosage and suitability. Additional working time will normally also extend curing.



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STAGE 5

INSTALL P.HB POLY SCREED

POUR, DISTRIBUTE & LEVEL

Work systematically while maintaining a continuous installation.



POUR
Transfer mixed material to the floor.

SPREAD
Distribute evenly across the surface.

TROWEL
Level to the required finish.

01 CONFIRM SYSTEM READINESS

Before screeding:

- Substrate preparation complete
- Repairs complete
- R.S.P Primer correctly installed
- CRM mesh properly embedded
- Edges and terminations prepared
- Mixing equipment ready
- Exit route established



02 POUR THE MATERIAL



Transfer freshly mixed P.HB Poly Screed directly onto the prepared reinforced surface.

Do not allow material to remain unnecessarily in the mixing bucket.

03 DISTRIBUTE



Use a suitable:

FLAT TROWEL

to guide the screed across the surface. Work the material carefully into:

- EDGES
- CORNERS
- DOORWAYS
- TRANSITIONS
- PERIMETERS

04 MAINTAIN CONSISTENCY



Work methodically across the floor.

Maintain:

- CONSISTENT MIXES
- CONSISTENT APPLICATION
- CONSISTENT DEPTH
- WET EDGE CONTROL
- UNIFORM FINISH

05 WORK TOWARD THE EXIT



Plan the installation so installers do not become trapped within completed areas.

Progress toward the predetermined exit point.

06 DO NOT OVERWORK



Once the desired level and finish have been achieved, avoid repeatedly disturbing material as the chemical reaction progresses.

Excessive late trowelling may negatively affect finish quality.

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STAGE 6

FINISHING, JOINTS & OPTIONAL DECORATIVE SYSTEMS

CREATE THE FINAL SURFACE

LEVEL
Achieve a smooth, even surface.

DETAIL
Finish edges, joints and details.

FINISH
Ready for decorative or protective systems.



01 SURFACE FINISH



The finished P.HB Poly Screed should be:

- SMOOTH
- CONSISTENT
- FULLY INTEGRATED
- FREE FROM DRY POCKETS
- FREE FROM MAJOR TROWEL DEFECTS
- FULLY BONDED

Inspect continuously during installation rather than attempting extensive correction after cure.

02 EDGES



Finish neatly against:

- Walls
- Thresholds
- Drainage details
- Perimeter profiles
- Existing floor transitions
- Expansion / movement details where required.

03 JOINTS



Existing structural or movement joints must be assessed as part of the project specification.

Do not automatically rigidly bridge active movement joints without an appropriate detail.

04 OPTIONAL DECORATIVE FINISHES



INFINITY SPRAY GRANITE



DECORATIVE FLAKES



SUITABLE PROTECTIVE TOPCOAT

Where specified, the P.HB Poly Screed system may form part of a decorative Infinity Effects flooring build-up.
The exact decorative system and recoat procedure should follow the corresponding Infinity Effects system TDS.

05 SECOND APPLICATION / RECOAT

Where an additional resin layer is required, apply within the permitted recoat period specified for the system.
If the permitted recoat window has been exceeded:



MECHANICALLY ABRADE



VACUUM / CLEAN



RE-ESTABLISH THE REQUIRED BONDING PROFILE



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STAGE 7

CURING & SITE CONDITIONS



PROTECT THE FLOOR DURING CURE

ENVIRONMENTAL CONTROL MATTERS

P.HB Poly Screed is fast curing, but reopening must be based on the current product TDS and actual site conditions rather than a universal time assumption.

PROTECT
Prevent damage during cure.

CURE
Allow adequate curing time.

OPEN
Reopen when suitable for use.

01 DURING INSTALLATION



Avoid application where conditions could compromise:

- ADHESION
- FLOW
- CURING
- SURFACE APPEARANCE
- FINAL PERFORMANCE

02 SUBSTRATE CONDITION



The substrate must be completely dry and free from moisture contamination unsuitable for the resin system.

Do not apply over:

- STANDING WATER
- CONDENSATION
- WET CLEANING RESIDUE

03 PROTECT DURING CURE



Prevent premature:

- FOOT TRAFFIC
- WHEELED TRAFFIC
- EQUIPMENT MOVEMENT
- WATER CONTAMINATION
- DUST / DEBRIS
- OTHER TRADES

04 SITE TEMPERATURE



Temperature affects resin reaction.

WARMER CONDITIONS
→ shorter working time / faster cure

COOLER CONDITIONS
→ longer working time / slower cure

Always follow the current component TDS for the permitted installation envelope.

05 BEFORE OPENING



Confirm the surface is:

- FULLY CURED
- FIRM
- UNIFORM
- FREE FROM DAMAGE
- READY FOR THE INTENDED SERVICE CONDITIONS

Do not judge readiness solely by whether the surface feels dry to touch.

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STAGE 8

INSPECTION & TROUBLESHOOTING

FINAL INSPECTION

CHECK BEFORE HANDOVER

INSPECT
Check the finished floor.

CORRECT
Address any issues.

COMPLETE
Handover with confidence.



01 FINAL INSPECTION



Check for:

- Uniform appearance
- Correct finished levels
- Secure edges
- Full mesh encapsulation
- Complete cure
- No dry screed pockets
- No contamination
- No obvious delamination
- Consistent surface finish
- Correct transitions

02 COMMON ISSUES

01 POOR ADHESION



Possible causes:
Contaminated substrate, inadequate grinding, residual grease, dust, unsuitable tile preparation or incorrect priming.

Action:
Identify and remove the affected material, establish the cause and correctly reprepare the substrate before repair.

02 MESH VISIBLE / PROUD



Possible causes:
Mesh not properly pressed into primer, folds or raised sections, insufficient screed coverage.

Action:
Ensure CRM mesh is laid flat and fully integrated into the R.S.P Primer before screeding.

03 DRY / POWDERY AREAS



Possible causes:
Incomplete incorporation of Part C, insufficient mixing or material left unmixed around the sides/base of the container.

Action:
Use the specified mixing sequence and thoroughly incorporate all components.

04 LUMPS IN SCREED



Possible causes:
Part C introduced too quickly or inadequate mechanical mixing.

Action:
Add Part C progressively while mixing and continue until homogeneous.

05 TROWEL MARKS / UNEVEN FINISH



Possible causes:
Inconsistent distribution, delayed finishing or overworking material during cure.

Action:
Maintain a continuous installation rhythm and finish each section while material remains correctly workable.

06 BATCH VARIATION



Possible causes:
Different component proportions, inconsistent mixing times or inconsistent installation technique.

Action:
Use complete matched components and maintain the same procedure for every batch.

07 TELEGRAPHING TILE JOINTS



Possible causes:
Joints not filled sufficiently, unstable tiles, inadequate reinforcement or insufficient preparation.

Action:
Correct tile defects and joints during preparation and ensure the CRM mesh reinforcement system is installed correctly.

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INSTALLER NOTES & DISCLAIMERS

Important information for professional installers to help achieve the intended appearance, adhesion, durability and performance of the:

INFINITY EFFECTS P.HB POLY SCREED SYSTEM

PROFESSIONAL GUIDANCE FOR RESIN FLOOR RESURFACING

INSTALLER RESPONSIBILITY

The installer is responsible for determining whether the existing substrate and supporting construction are suitable for resurfacing. Do not install over substrates that are:

UNSTABLE → WET → CONTAMINATED → STRUCTURALLY UNSOUND → POORLY BONDED

Surfaces must be completely dry, structurally sound and free from loose material, laitance, dust, oils, grease and other adhesion-inhibiting contamination.

Substrate-specific preparation can vary. Always follow the current P.HB technical sheet.

CONCRETE SYSTEM SEQUENCE



INSPECT → MECHANICALLY GRIND TO APPROX. CSP 2–3 → VACUUM → REPAIR → R.S.P PRIMER → PRESS CRM MESH INTO PRIMER → P.HB POLY SCREED → CURE → OPTIONAL DECORATIVE / PROTECTIVE FINISH

TILE SYSTEM SEQUENCE



INSPECT TILES → REMOVE LOOSE / BROKEN TILES → REPAIR & FILL → DEGREASE → SAND / ABRADE → VACUUM / CLEAN → R.S.P PRIMER → PRESS CRM MESH INTO PRIMER → P.HB POLY SCREED → FULL CURE

MIXING SEQUENCE



PART A + PART B

↓

MIX THOROUGHLY

↓

GRADUALLY ADD PART C

↓

MIX UNTIL COMPLETELY HOMOGENEOUS

Do not estimate component ratios or modify the supplied system with unauthorised materials. Use only matched Infinity Effects system components and follow the current packaging/TDS instructions.

HEALTH & SAFETY

Wear appropriate PPE during:

GRINDING | MIXING | HANDLING | APPLICATION | CLEANING

Mechanical preparation can create airborne dust. Use suitable:

- RESPIRATORY PROTECTION
- EYE PROTECTION
- GLOVES
- PROTECTIVE CLOTHING
- DUST EXTRACTION

Consult the current product: **SAFETY DATA SHEET — SDS** before use.

DISCLAIMER

Installers and customers must read and follow all current individual product and system instructions before installation.

Substrate condition, preparation, moisture, contamination, tile stability, repairs, priming, mesh installation, mixing, ambient conditions, application technique and curing conditions can all influence final performance.

Products installed outside the published Infinity Effects system requirements may not achieve their intended appearance, adhesion or service performance.

CRITICAL SYSTEM GUIDELINES



INSPECT → PREPARE SUBSTRATE → REPAIR DEFECTS → REMOVE CONTAMINATION → VACUUM / CLEAN → APPLY R.S.P PRIMER → PRESS CRM MESH INTO PRIMER → MIX A + B → ADD PART C → MIX UNTIL UNIFORM → POUR → TROWEL → TROWEL & LEVEL → PROTECT → FULL CURE