



DELTA CRYSTAL SYSTEM

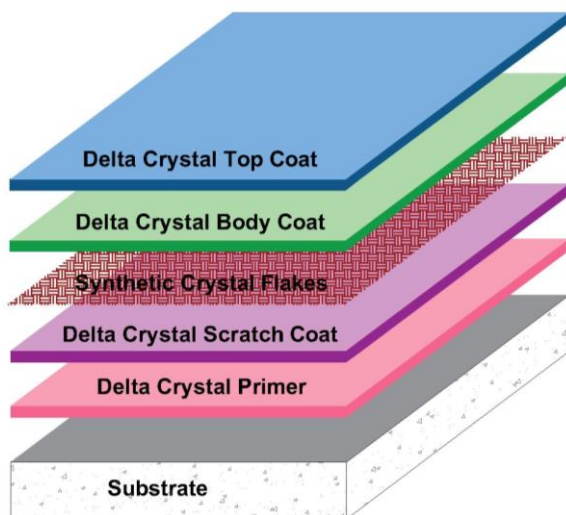
Decorative Epoxy Flooring System with Synthetic Crystal Flakes



DESCRIPTION

A surface which incorporates coloured synthetic crystal flakes embedded in a base coat and sealed with clear, solvent free epoxy resins. Can be used as a floor or wall finish.

SYSTEM DESIGN



FINISH

Satin

BENEFITS

- ❖ Decorative and can incorporate anti-skid finish
- ❖ Hard wearing and non-dusting
- ❖ Good chemical and abrasion resistance
- ❖ Solvent - free
- ❖ Hygienic – Does not support fungus or bacteria growth
- ❖ Can be laid over tiled surfaces
- ❖ Integral waterproofing system
- ❖ Available in different design patterns
- ❖ Available in convenient DIY set
- ❖ **HACCP certified to Singapore Standard** for use in facilities covered by HACCP accreditation



USES

- ❖ Areas where a clean and hygienic environment is required.
- ❖ Areas where a hard wearing, decorative and aesthetically pleasing finish is required.
- ❖ Typical application include hotel (back of house), pharmaceutical, food processing, office, hospital, electronic, production areas, passageway, staircase, kitchen, toilets, balconies, etc.

COLOUR

Available in a range of standard colours (refer to standard colour chart).

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SURFACE PREPARATION

Substrates to be coated must be structurally sound, clean, dry and free from any contamination.

For Mineral Surfaces:

- Use **Delta Anti Slip Floor Treatment**.
- Apply Delta Anti Slip Floor Treatment directly on the surfaces by scrubbing with bristle pad or bristle brush for 2-3 minutes at coverage of 8-10m²/lit.
- Rinse thoroughly with plenty of water and dry the floor.

For Resinous Surfaces:

- If resinous coating is not sound, to remove.
- If resinous coating is sound, proceed with sanding, vacuum clean and followed with application.

For Concrete Substrates:

- Surface preparation by captive shot blasting, scarifying, diamond disc grinding.
- For oil/grease contaminated areas, use chemical degreaser followed by thorough water washing and drying.

For other specific application, consult DELTA INTERCONTINENTAL P/L.



APPLICATION

- ❖ Apply Delta Crystal Primer (Delta Starlite 116) @ 0.25kg/m².
- ❖ Apply Delta Crystal Scratch Coat (Delta Starlite 115QS Scratch Coat) @ 1.20kg/m².
- ❖ Broadcast synthetic crystal flake @ 0.60kg/m².
- ❖ Allow 3 hours to set. Remove loose flakes.
- ❖ Apply Delta Crystal Body Coat (Delta Starlite 115QS Resin) @ 0.60kg/m².
- ❖ Apply Delta Crystal Topcoat (Delta Starlite 115QS Top Coat) @ 0.10kg/m²

Mixing - Before mixing, stir Part A, then mix Part A and Part B thoroughly for 2 minutes, using a slow speed power mixer (300 – 500 rpm).

Tools - Applied by brush, short nap epoxy roller.

Recoating Time - Interval between coats: 3 hours.
Maximum recoating time: 24 hours

PACKAGING

13.20kg set (Comprises of):

1) Primer – 1kg/set	Base : 0.62 kg Hardener : 0.38 kg
2) Scratch Coat – 5.80kg/set	Base : 5 kg Hardener : 0.80 kg
3) Synthetic Crystal Flakes	2.80 kg/bag
4) Body Coat – 2.90kg/set	Base : 2.10 kg Hardener : 0.80 kg
5) Topcoat – 0.70kg/set	Base : 0.52 kg Hardener : 0.18 kg

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TECHNICAL AND APPLICATION DATA

Compressive Strength (ASTM C579:2001)	52.70 N/mm ²
Flexural Strength (ASTM C580:2002)	77.10 N/mm ²
Tensile Strength (ASTM C307:1999)	38.60 N/mm ²
Abrasion Resistance (ASTM D4060:1995)	<0.25g at 1000 revolutions, 1000g load under CS-17
Shore D Hardness (ASTM D2240:2000)	88 Degree
Chemical Resistance Spot for 24 hours a. 50% ethyl alcohol b. 5% vinegar c. saturated lime solution d. soap solution e. 10% ammonia solution f. vegetable oil g. condiment (chilli sauce) h. beverage (coffee) i. 40% sulphuric acid	Item a-h No stain, cracks, crazing, blisters or peeling. No effect after 24 hours exposure. Item i Stain but no cracks, crazing, blisters or peeling. No effect after 24 hours exposure.
Chemical Resistance	See list attached
Pull-Off Strength on concrete (ASTM D4541:2009)	Damp surface: 2 N/mm ² Dry surface: 2.9 N/mm ²
Pull-Off Strength on tiles (ASTM D4541:2009)	Unglazed tile: 1.3 N/mm ² Glazed tile: 1.1 N/mm ²
Water Penetration (DIN 1048 Part 5:1991)	No water penetration
Slip Resistance (SS485: 2011) for topcoat incorporated with anti-skid finish	Dry: 0.62 (Classification F) Wet: 37 (Classification X)

Note: Meets HDB's slip resistance specification under Standard Specifications for Building Works and Other Installations 2011.

HDB: Housing and Development Board of Singapore

Recommended dry film thickness	1.80mm
No. of coats	4
No. of components	2 for each coat
Mixing ratio (by weight)	Primer – 1.66:1 Scratch Coat – 6.25:1 Body Coat: 2.60:1 Topcoat – 2.90:1
Pot Life	20mins @ 29°C
Temperature resistance	55°C

MAINTENANCE

To maintain the appearance of the floor, all spillage must be removed immediately and clean regularly using rotary scrubber, wash and vacuum in conjunction with suitable detergents and waxes.

STORAGE CONDITIONS AND SHELF LIFE

All components of Delta Crystal System have a shelf life of 12 months in original unopened packing, stored in dry enclosed place without exposing to direct sunlight and at temperature between 15°C to 35°C, protected from frost.

SAFETY

Do not take internally. May irritate eyes and skin. Ensure adequate ventilation and avoid inhaling vapours. Always use with suitable personal protective equipment.

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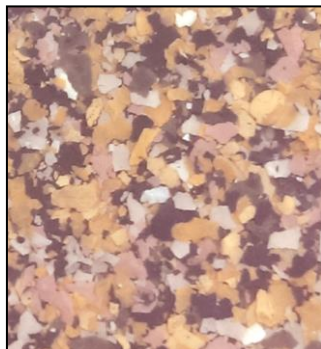
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STANDARD COLOUR CHART



Amber



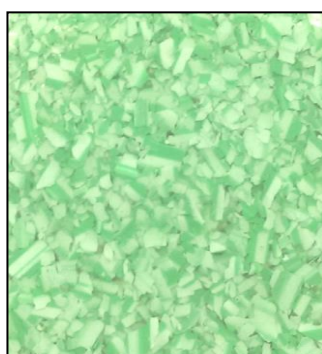
Granite



Hematite



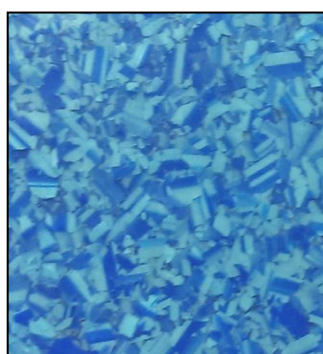
Moonstone



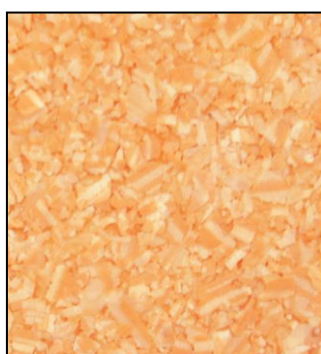
Jade



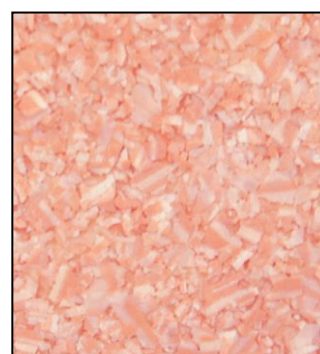
Marble



Sapphire



Sunstone



Rose Quartz

Note: The colours represented in this guide are as close as possible to those produce with the product themselves

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Chemical Resistance List

Chemical	Result
Acetic Acid (10%)	No effect
Acetic Acid (25%)	No effect
Acetic Acid (40%)	Faint mark (discoloration)
Acetic Acid (99%)	Faint mark (discoloration)
Brine (Saturated sodium chloride)	No effect
Calcium Chloride (50%)	No effect
Calcium Hydroxide (Saturated)	No effect
Citric Acid (20%)	No effect
Citric Acid (60%)	No effect
Detergent (Alkaline)	No effect
Formic Acid (40%)	Faint mark
Formic Acid (70%)	Faint mark
Formic Acid (90%)	Faint mark
Formic Acid (99%)	Severe mark
Gasoline	No effect
Hydrochloric Acid (10%)	No effect
Hydrochloric Acid (37%)	No effect
2-propanol (99%)	No effect
Jet Fuel	No effect
Kerosene	No effect
Methanol (99%)	No effect
Methylene Chloride (99%)	No effect
Methyl Ethyl Ketone (99%)	No effect

Chemical	Result
Motor Oil	No effect
Nitric Acid (5%)	No effect
Nitric Acid (30%)	No effect
Nitric Acid (65%)	Severe mark
Phosphoric Acid (5%)	No effect
Phosphoric Acid (40%)	Faint mark (discoloration)
Phosphoric Acid (50%)	Faint mark (discoloration)
Phosphoric Acid (85%)	Faint mark (discoloration)
Potassium Hydroxide (50%)	No effect
Sodium Chloride (Saturated)	No effect
Sodium Hydroxide (20%)	No effect
Sodium Hydroxide (32%)	No effect
Sodium Hydroxide (50%)	No effect
Sodium Hypochlorite (15%)	No effect
Sulfuric Acid (5%)	No effect
Sulfuric Acid (30%)	No effect
Sulfuric Acid (50%)	No effect
Sulfuric Acid (98%)	Severe mark
Toluene (99%)	No effect
Distilled Water	No effect
White Spirit	No effect
Xylene (99%)	No effect