



# DELTA CRYSTAL SYSTEM

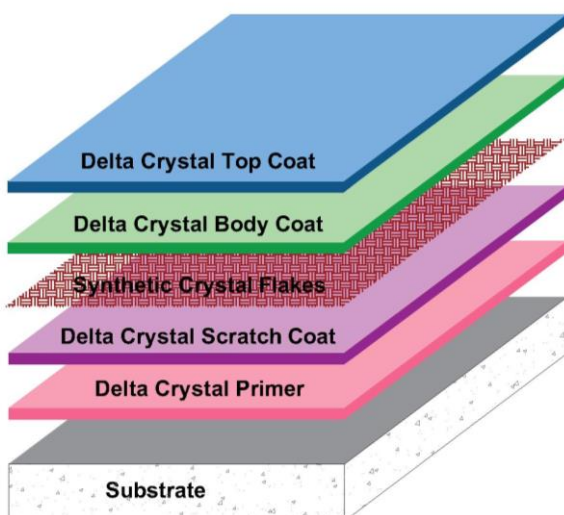
Decorative Epoxy Flooring System with Synthetic Crystal Flakes



## 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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Ref. No. 112020



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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 8-10m<sup>2</sup>/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/m<sup>2</sup>.
- ❖ Apply Delta Crystal Scratch Coat (Delta Starlite 115QS Scratch Coat) @ 1.20kg/m<sup>2</sup>.
- ❖ Broadcast synthetic crystal flake @ 0.60kg/m<sup>2</sup>.
- ❖ Allow 3 hours to set. Remove loose flakes.
- ❖ Apply Delta Crystal Body Coat (Delta Starlite 115QS Resin) @ 0.60kg/m<sup>2</sup>.
- ❖ Apply Delta Crystal Topcoat (Delta Starlite 115QS Top Coat) @ 0.10kg/m<sup>2</sup>

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 : 2.1 kg Hardener : 0.80 kg Filler : 2.90 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 : 0.49 kg Hardener : 0.18 kg

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## TECHNICAL AND APPLICATION DATA

Abrasion Resistance (ASTM D4060:1995)	<0.25g at 1000 revolutions, 1000g load under CS-17
Shore D Hardness (ASTM D2240:2000)	88 Degree
<b>Chemical Resistance Spot for 24 hours</b> 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	<b>Item a-h</b> No stain, cracks, crazing, blisters or peeling. No effect after 24 hours exposure.  <b>Item i</b> 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 <sup>2</sup> Dry surface: 2.9 N/mm <sup>2</sup>
Pull-Off Strength on tiles (ASTM D4541:2009)	Unglazed tile: 1.3 N/mm <sup>2</sup> Glazed tile: 1.1 N/mm <sup>2</sup>
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
Mixing ratio (by weight)	Primer – 1.56:1 Scratch Coat – 2.6:1:3.6 Body Coat: 2.6:1 Topcoat – 2.7:1

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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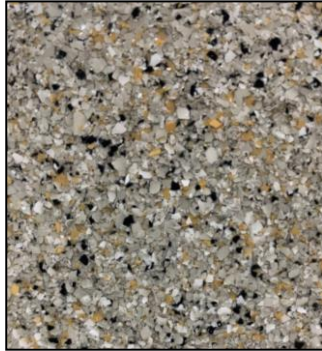
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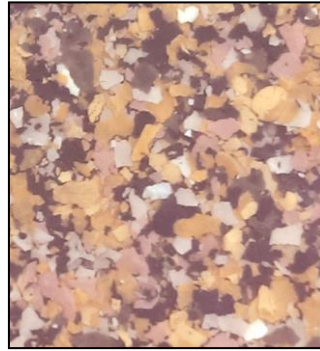
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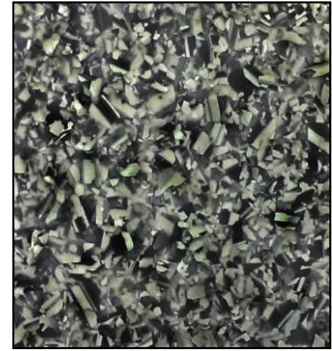
## STANDARD COLOUR CHART



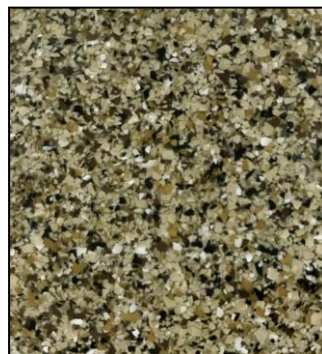
**Slate**



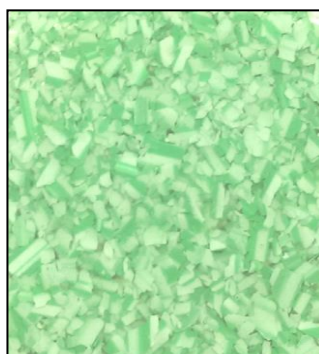
**Granite**



**Hematite**



**Moonstone**



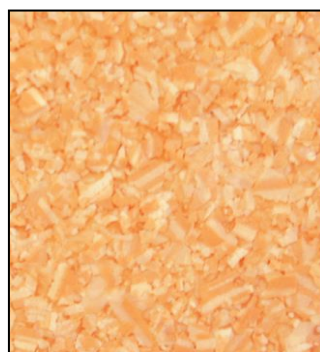
**Jade**



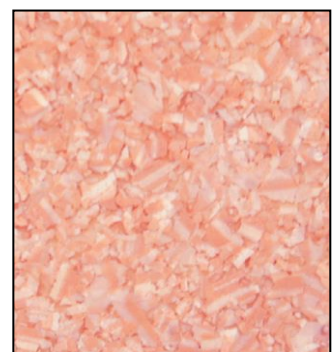
**Marble**



**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