

TECHNICAL DATA SHEET

Colourcrete Concrete Surface Retarder

For Exposed Aggregate Concrete Finishes on horizontal surfaces

1. PRODUCT DESCRIPTION

Colourcrete Concrete Surface Retarder is a spray-applied, water-based chemical formulation designed to delay the setting of the surface mortar layer of freshly placed concrete. This allows for the controlled removal of surface paste to expose the underlying aggregate, creating a durable, decorative exposed aggregate finish.

These Surface Retarders come in two forms:-

1. Colourcrete Surface Retarder N – Blue – for less than 20mpa concrete
 2. Colourcrete Surface Retarder S – Green – for greater than 20mpa concrete.
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2. FEATURES & BENEFITS

- **Ready to use:** no need for mixing or diluting
 - **Consistent Exposure:** Produces uniform and controlled aggregate exposure
 - **Ease of Use:** Simple spray-on application, bright blue or green marker dyes to help identify that you have applied evenly to the surface
 - **Improved Finish Quality:** Reduces risk of over/under exposure
 - **Water-Based:** Environmentally friendlier than solvent-based alternatives
 - **Versatile:** Suitable for a wide range of aggregate sizes and finishes
 - **Flexibility:** wash off time between 3 to 24 hours, weather dependent
 - **Attractive finish:** Provides an attractive, decorative finish
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3. COVERAGE

Typical coverage rates:

- **5–8 m² per litre**

Coverage will vary depending on:

- Concrete porosity

- Surface texture
 - Application method
 - Desired depth of exposure
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4. APPLICATION

Preparation

- Place and finish concrete as per standard practice by screeding and lightly hand trowelling to the desired finish.
- Mix the retarder liquid thoroughly for five minutes
- Ensure surface is free of bleed water prior to application
- Do not apply during rain or when rain is imminent
- Do not apply in the heat of the day
- Cover any surfaces not being treated to protect from overspray.

Application Method

1. Apply Colourcrete Surface Retarder evenly using a low-pressure sprayer as soon as the bleed water has disappeared but before the initial set.
2. Ensure full and consistent coverage across the slab
3. Avoid ponding or missed areas
4. Protect treated surface from wind, sun, and rain using plastic sheeting if required

Exposure Process

- Allow concrete to cure sufficiently (typically 3–24 hours depending on conditions)
- Regularly check the progress of the set by applying pressure to the surface with your fingers and moving them until you can no longer feel movement of the underlying surface while the surface remains soft to touch.
- Remove surface mortar using:
 - Hose
 - Water blaster (preferred)
 - Stiff broom and water
- Wash until desired aggregate exposure is achieved

As a general rule, the depth of the etch should not be greater than one third of the mean diameter of the aggregate.

5. TECHNICAL DATA

Property	Value
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Appearance	Liquid (varies by grade)
Base	Water-based
Application Method	Spray
Coverage	5–8 m ² /L
Setting Delay	Controlled surface retardation
Clean Up	Water
Packaging	Typically 20L containers

Note: Performance may vary depending on environmental conditions.

6. CLEAN UP

- Clean all equipment immediately after use with clean water
 - Do not allow product to dry in spray equipment
 - Hardened material may require mechanical removal
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7. STORAGE

- Store in a cool, dry place
 - Keep containers tightly sealed
 - Protect from frost and extreme heat
 - Shelf life: Typically, 12 months when stored correctly
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8. HEALTH & SAFETY

- Avoid contact with skin and eyes
- Use appropriate PPE: gloves, safety glasses, protective clothing
- Ensure adequate ventilation during use
- Do not ingest

Refer to Safety Data Sheet (SDS) for full details

9. FIRST AID

Eyes:

- Rinse immediately with clean water for at least 15 minutes
- Seek medical attention if irritation persists

Skin:

- Wash thoroughly with soap and water

Inhalation:

- Move to fresh air

Ingestion:

- Do NOT induce vomiting
 - Seek medical advice immediately
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10. RESTRICTIONS OF USE

- Not suitable for use in freezing conditions
 - Do not apply to surfaces subject to rain before initial set
 - Do not apply in the heat of the day
 - Not designed for structural modification of concrete
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11. PRECAUTIONS & LIMITATIONS

- Application timing is critical for desired finish
 - Environmental conditions (temperature, wind, humidity) will affect performance and timing of the set
 - Concrete mix, aggregate, cement and strength will vary and therefore change the parameters of use.
 - Trial applications are strongly recommended prior to full use
 - Uneven surfaces or application may result in inconsistent exposure
 - Do not use when the ground temperature is below 10°Celsius
 - Do not leave the job unattended without regularly checking the set.
 - Use protective coverings on any surfaces that may be affected by overspray. The product contains a food-grade dye as a visual marker, which may stain other surfaces. While staining may fade with washing and weathering, the product must not come into contact with surfaces other than those being treated.
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12. SUITABILITY

Suitable for horizontal surfaces such as:

- Driveways
- Pathways
- Patios
- Commercial and residential decorative concrete

Compatible with most standard concrete mixes and aggregates

13. DISCLAIMER

The information provided in this Technical Data Sheet is based on current knowledge and experience. It is given in good faith to assist users in achieving the best possible results. However, as conditions of use are beyond our control, no guarantee is given or implied. Users must determine the suitability of the product for their specific application and are responsible for ensuring correct usage.

For further technical assistance, contact your Colourcrete representative.