# READY ACID

# **Technical Sheet**



READY Acid is a concentrated acidic solution which, when correctly diluted, is used to prepare concrete for application of sealer.

#### **Precautions:**

- READY Acid is a STRONG ACIDIC SOLUTION and should be used with extreme care: please ensure all safety guidelines are read prior to use, and are strictly adhered to during application.
- All susceptible surfaces i.e. walls and joinery, should be protected from splashing during application.
- The concrete surface must be well buffered with water prior to application of READY Acid, failure to do so will result in 'acid burns' to the concrete surface.
- Ensure runoff during application is correctly neutralized to prevent corrosion of surrounding surfaces. i.e. untreated concrete, asphalt etc.
- DO NOT dispose of READY Acid down drains or waterways.

# **Application:**

• Equipment:

Bucket (for dilution), broom, plastic watering can (for distribution), tray or polythene (to place bucket on), safety equipment (see 'Safety and Handling').

Preparation

Floor should be cleaned and any contaminated areas treated prior to application of READY Acid. Ensure all susceptible surfaces i.e. walls, joinery etc, are covered to prevent splashing.

Test Area:

Prior to full application of READY Acid it is recommended that a small test area a way from the main visual area of the floor is prepared (following instructions) to ensure that the READY Acid is correctly diluted for your application.

Correctly diluted: The READY Acid 'bubbles' lightly on the surface, and following short expo-

sure (<1 min), neutralization, and drying, the area appears free of surface

laitance (dusty or 'chalky' substance on surface).

Too diluted: Little to no 'bubbling' evident following application of the acidic preparation,

and following neutralization and drying, the area appears unchanged.

**Too concentrated:** Aggressive bubbling is observed on application of the acid, and after a short

period (<1 minute) concrete starts to corrode, exposing sand grains, then aggregate particles. Following neutralization and drying, concrete appears

darker with 'grainy' or textured appearance.

- If the concrete surface is still 'soft' (if concrete is not fully cured or incorrectly finished) the READY Acid will have a corrosive effect, similar to that of a 'too concentrated' solution.
- Always start with the weakest applicable dilution as the concentration can always be increased.

- Conversely, if the solution is too concentrated and adversely alters the concrete surface, the effects are a lot more difficult to remedy, if at all!
- If you are unsure about the appropriate dilution or application of READY Acid contact Allied Concrete before proceeding with the entire area.

#### Dilution:

Dilute READY Acid with clean water as appropriate:

- Always add READY Acid to water when diluting (not water to acid).
- Prepare and 'etch' small areas at a time (initially 2-4 m2), and start away from main parts of the floor to get comfortable with procedure.

STRENGTH	DILUTION (Prep:water)	DESCRIPTION
Mild etch	1:30	Recommended for preparation of internal floors, or areas with minimal surface laitance. Will not significantly alter texture of the floor.
Medium etch	1:20	Recommended for preparation of external surfaces, or areas with significant surface laitance. Prolonged treatment exposes sand (and eventually aggregate), increasing surface texture and changing concrete appearance.
Heavy etch	1:10	Recommended ONLY when heavy exposure or 'Sandstone' effect is required. Will significantly alter appearance and texture of the concrete - proceed with caution!

# **Internal Application:**

- When using READY Acid on interior floors, extreme care must be taken to prevent collateral degradation of other surfaces.
  - All walls, skirting, and metal joinery should be protected prior to applicaiton.
- Prepare diluted solution of READY Acid in bucket as described above
  - Always add READY Acid to water (not other way around).
  - If using a watering can, carefully transfer solution to watering can.
- When using diluted solution, place bucket/watering can on a tray or sheet of polythene to prevent any spillage onto the concrete surface while working.
  - Care must also be taken when taking broom/brush from bucket.
- Wet down area with clean water, making sure water is ALWAYS visible on the surface where READY Acid is applied.
  - If surface is not properly wet, the READY Acid will react directly with the concrete surface resulting in 'acid burns', which significantly alter both the concrete colour and texture.
- Disperse solution with watering can or using broom in circular motion, lightly working solution over surface.
  - Ensure solution is applied evenly over surface.
  - Care must be taken NOT to exceed area which has been pre-wetted.
- Once initial reaction has stopped, acid should be neutralised and removed.
- Repeat process over whole area to be treated, remembering to keep surface wet as you move from area to area.

### **External Application:**

- Prepare surface as described above
- Ensure surface is kept wet during application
  - Care must be taken in regard to evaporation of surface water
- If working on a slope, start at the bottom and work back up the slope.
  - Ensure active solution does not run over already treated or non-buffered concrete as will over 'etch' these areas.
- Solution can be removed with excess water, or following neutralization.
- Ensure runoff does not go down waterways, or onto areas susceptible to pH changes i.e. gardens.
- · Coverage:
  - Coverage is dependent on dilution rate and application.
- Cleanup:
  - All equipment used should be neutralized and cleaned with excess water.
  - Ensure READY Acid is NOT disposed of down drains or waterways.

# **Safety and Handling:**

- Hazard: READY Acid is a STRONGLY ACIDIC solution producing vapour irritable to eyes and respiratory tract. It is extremely corrosive, capable of causing burns to skin. EXTREME CARE must be taken.
- UN Number: 1789
- DG Number: 8
- Hazchem code: 2(R)
- Active Ingredient: Hydrogen Chloride (CAS 7647-01-0)
- Safety: Wear suitable protective clothing, impervious footwear, eye protection, protective gloves, and respirator.
- Storage: Store in cool, dry, well ventilated place in original container. Store out of reach of children. Store away from direct sunlight, oxidizing agents (e.g. nitrates, peroxides, hypochlorites), acids, anionic detergents (e.g. soap), heat sources and foodstuffs. Ensure container is sealed when not in use, and checked regularly for leaks or spills. Do not allow vapours to collect in enclosed spaces. READY Acid-can be stored for up to 12 months.

#### **First Aid:**

- Swallowed: DO NOT induce vomiting. Give water or milk to drink. Obtain medical attention immediately. For emergency information contact the National Poisons Centre (0800 764 766).
- Eyes: Immediately flood with copious quantities of water, holding eye open if necessary, for at least 15 minutes. Seek urgent medical attention.
- Skin: Remove contaminated clothing and shoes and wash skin thoroughly with excess water. If irritation occurs or persists, seek medical attention. Launder clothing and clean shoes before re-use.
- Inhalation: Remove patient from exposure, keep warm and at rest. If there is respiratory distress, give oxygen and seek immediate medical attention.

## **Physical and Chemical Properties:**

- Appearance colourless to yellow liquid
- Odour pungent irritating fumes
- Solubility miscible with water in all proportions
- Reactivity
  - highly corrosive to most metals
  - reacts violently with alkali
  - reacts with sodium hypochlorite to evolve chlorine
- Specific Gravity 1.15 kg/L

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