DIAMOND TOOL PERFORMANCE ADDITIVE FOR CONCRETE CUTTING & GRINDING

C-Complex™ is a next-generation, concentrated performance additive designed to substantially increase concrete grinding, polishing and cutting speed and lengthen diamond tool life. C-Complex™ radically improves diamond tool effectiveness and lifespan, shortening jobs, lowering tool costs and raising profit margins.

Key Applications

- Grinding, honing, polishing of concrete floors
- Concrete cutting
- Removal of floor coatings by grinding
- How C-Complex™ optimizes cutting / grinding speed AND diamond tool life:
- Exploits a physical property called the Rehbinder Effect, softening the substrate ahead of the tool.
- Maximizes effective torque at the tool–surface interface while reducing machine torque and tool vibration.
- Enables greater increase in penetration speed with increased cutting speeds and pressure.
- With pressure and heat, the additive forms a protective coating around each exposed diamond which minimizes diamond wear and retains sharpness.
- Preferentially fills micro fractures in diamonds as they occur during use, reducing hydraulic pressure inside the cracks and slowing disintegration of the diamonds.

Silica Safety

C-Complex™ is non-toxic, low odor and biodegradable, used at approximately 1% concentration with water.

There has been a worldwide shift toward wet grinding and cutting of concrete in response to global recognition of the health risks from breathing in silica dust released from concrete and granite aggregate. In many countries, dry processing of concrete and natural stone outdoors has been outlawed and indoor dry processing must adhere to strict ventilation protocols in controlled factory environments.

C-Complex™ Technical Benefits

- Low cost concentrate – dilution of approximately 1% with water.
- Easy to use for both wet and low water grinding and with simple sophisticated equipment
- Increased tool life up to 40%
- Concrete grinding and polishing: multiple x increase in grinding speed. Recommended for grinding back coatings or polished concrete with densifiers / hardeners.
- Concrete cutting: Mutiple x increase in cutting speed - we have achieved greater than 6x cutting speed on real life projects.

- Increased machine life: C-Complex™ increases torque at the cutting interface while reduling load on the machine and tool vibration
- Faster removal of floor coatings - increasing grinding speed, reduces diamond tool fouling.
- Biodegradable
- Anti-fouling, bacterial growth resistant
- Build in anti-rust / corrosion inhibitors

How to Use: Concrete Polishing

- Option 1 – mix 1% C-Complex™ with water, then apply solution to concrete floor.
- Option 2 – In situations where you have system which releases water onto the floor as you go, premix 1% C-Complex™ with the water in your tank or use an electronic doser/fertigation equipment to add 1% C-Complex™ into the mix as you go.
- Typical Application Rate: is 0.5 to 1% C-Complex™ mixed with water. 1% works very well for most projects.

Mix Ratios

1% Concentration (1:100 Dilution)
Metric:
- 100ml C-Complex™ to 10L water
- 1L C-Complex™ to 100L water

Imperial
- 6fl. Oz C-Complex™ to 5G water
- 1Qt. C-Complex™ to 25G water

Additional How to Use tips:

- Make wet grinding easier with M-Protect™ and M-Clean™:
- M-Protect™ is a release agent which is sprayed onto machinery prior to use and allows easier removal of dried concrete slurry.
- M-Clean™ is a high-tech acid wash which enables quick removal of dried concrete slurry from machinery without corrosion to exposed metals.

- If you use more than 10% C-Complex™ in a recycling system where the water is recyced or agitated in some way, you may get more than a desirable amount of foaming, then use Rache AF-NC7™ Anti-Foam. At concentrations of 10% or less this can usually be avoided.

Precautions

- Eye / Face: Wear splash-proof goggles.
- Hands: Wear PVC or rubber gloves.
- Body: When using large quantities or where heavy contamination is likely, wear coveralls.
- Respiratory Where an inhalation risk exists, wear a Type A (Organic vapour) respirator.
- Do not take internally.
- Avoid spraying in windy conditions.
- Wash hands thoroughly.

First Aid

IF ON SKIN (or hair): Remove all contaminated clothing immediately. Rinse skin with water until advised to stop by a Poisons Information Centre or doctor

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing until advised to stop by a Poisons Information Centre or doctor (or for at least 15 minutes)

IF INHALED: If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

IF INGESTED: If swalloed, do not induce vomiting. Refer to Material Safety Data sheet for more details.

For advice, immediately contact a doctor, ambulance or a Poison Information Centre:

Australia: 13 11 26 (Australia Wide)

USA: American Association of Poison Control Centres 1-800-222-1222

Canadian Poison Centres: Ontario (24/7) Telephone: 416-813-5900; Toll free: 1-800-268- 9017
UK: England and Wales NHS 111 - dial 111; **Scotland** NHS 24 - dial 111; **Republic of Ireland** 01 809 2166

Accidents

Spillage: Take up mechanically or with absorbent material such as sand, earth or vermiculite.

Technical Data

- Colour: Clear colourless to light straw yellow liquid
- Weight: 5L (1.3G) = 5.5Kg (12.1Lb), 20L (5.3G) = 21.4Kg (47Lb, 200L (53G) = 56.5Kg (24Lb) incl. pallet.
- VOCs: 343g/L (using EPA method 24)

Transport

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

Pack Sizes

5L (1.3G); 20L (5.3G); 200L (53G); 1000L (264G) – for factory / OEM only

Shelf Life and Storage Guidelines

Best within 3 years of manufacture date. Store away from direct sunlight.
Keep container tightly sealed, in a well-ventilated place, at 36 – 90 ⊠ °F or 2 - 32⊠ °C

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