



S-Complex™

PRODUCT DATA SHEET

DIAMOND TOOL PERFORMANCE ADDITIVE FOR CUTTING & GRINDING NATURAL STONE, SINTERED STONE, PORCELAIN, QUARTZ & GLASS

S-Complex™ is a concentrated, next generation performance additive delivering MASSIVE GAINS IN CUTTING & GRINDING SPEED.

Key Applications

- Cutting / sawing / grinding of natural stone in fabrication plants. We are achieving up to 18.75 times cutting speeds with hard natural stones.
- Increases honing / polishing speeds.

S-Complex™ Technical Benefits

- MASSIVE gains in cutting and grinding speed – up to 18.75 times normal cutting speed in real stone fabrication plants.
- INEXPENSIVE use only 0.4% (1:250) concentration up to 0.8% (1:125) concentration to achieve optimum results. The product lasts well in water recycling systems so redosing is also inexpensive.
- Prolongs life of the diamonds in diamond tools
- Cleaner cuts and big reduction in chipping and blowouts.
- Faster, cleaner cutting of problematic hard materials including porcelain and sintered stones.
- Significantly lower saw noise levels, especially on hard sintered stone and porcelains.

How S-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 depth per cut with increased cutting speeds
- 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.

How to Use: Stone / Quartz / Porcelain, Sintered Stone / Glass Fabrication plants:

- Add 0.5% to 1% S-Complex™ to your water re-circulation system. We have found 0.5% to work well when only natural stone is being sawn and processed. 0.8% is recommended where a variety of harder man-made materials such as porcelain and sintered stone are being cut and processed as well as natural stone.
- S-Complex™ is recycled with your water. S-Complex™ will slowly degrade with multiple usage, is attracted to cuttings and will be diluted as you add water to replace water which evaporates. Add 0.5 to 0.8% S-Complex™ to your recycled water at regular intervals or constantly dose at very tiny drip levels with a suitable peristaltic dosing pump.

HOW TO USE: Natural stone floor honing and grinding

Mix Ratios	
<p>0.5% Concentration (1:200 Dilution)</p> <p>Metric:</p> <ul style="list-style-type: none"> • 50mL S-Complex™ per 10L water • 0.5L S-Complex™ to 100L water • 5L S-Complex™ to 1000L water <p>Imperial:</p> <ul style="list-style-type: none"> • 6fl. Oz S-Complex™ to 10G water • 2Qt. S-Complex™ to 100G water • 5G S-Complex™ to 1000G water 	<p>0.8% Concentration (1:125 Dilution)</p> <p>Metric:</p> <ul style="list-style-type: none"> • 80mL S-Complex™ per 10L water • 0.8L S-Complex™ to 100L water • 8L S-Complex™ to 1000L water <p>Imperial:</p> <ul style="list-style-type: none"> • 10fl. Oz S-Complex™ to 10G water • 3.2Qt. S-Complex™ to 100G water • 8G S-Complex™ to 1000G water

- Option 1 – mix 1% S-Complex™ with water, then apply solution to stone floor.
- Option 2 – In situations where you have a system which releases water onto the floor as you go, add 1% S-Complex™ to the water in your tank or use an electronic doser/fertigation equipment to add 1% S-Complex™ into the mix as you go.

Complimentary Products:

- 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.

Safety

There has been a worldwide move toward wet processing of stone due to the dangerous health effects of breathing in silica dust i.e. dust from breaking up the silica content in the stone. In many countries, dry processing of natural stone has been outlawed, except in controlled factory environments with specified extraction / ventilation equipment and strict HR protocols.

S-Complex™ is non-toxic, low odor and biodegradable.

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

Eye: If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

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

Skin: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion: If swallowed, do not induce vomiting.

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.
- Keep container tightly sealed, in a well-ventilated place, at 36 - 100° Fahrenheit of 2 - 38° Celsius

Technical Data

- Specific Gravity: 1.04
- 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)

Country of Manufacture

Australia