SILPRO

CONCRETE SUPPLEMENT™

Integral Admix to Concrete and Cement-Based Mortars
High Performance and Cost Effective
Faster Set Times and Finishing Times
High Early Compressive Strengths
Controlled Acceleration
Anti-Freeze Protection
Shrinkage Reduction

SILPRO, LLC / 2 NEW ENGLAND WAY / AYER, MA 01432-1514 / 800-343-1501 / 978-772-4444 / FAX 978-772-7456 / WWW.SILPRO.COM

Concrete Supplement™ is an integral admixture that reacts with Portland cement in concrete, mortar, stucco and grout to produce complete hydration. Mix designs with complete hydration have increased compressive strength, a reduction in shrinkage and faster set times.

Advantages

- High Early Compressive Strengths
- Faster Set Times and Finishing Times
- Shrinkage Reduction
- Workability and Controlled Acceleration
- Anti-Freeze Protection
- All Weather Protection
- Increases Strength up to 30%
- Reduces Cracking
- Durable and Non-Dusting Surfaces

Technical Data

Concrete Supplement™ meets all the requirements in ASTM C494, as a Type C Accelerating admixture. All comparisons to "normal concrete" are versus a 4000 psi concrete mix design.

Set Time (ASTM C403 with concrete)

Initial	2hr 30min (vs 3hr 38min for normal concrete)
Final	3hr 36min (vs 5hr 10min for normal concrete)

Note: ASTM C494 Specification must be at least 1 hour earlier and no more than 3.5 hours earlier for the Initial Set and at least 1 hour earlier for the Final Set.

Compressive Strength (ASTM C39)

3 day	4260 psi (vs 3280psi for normal concrete)
7 day	4820 psi (vs 3800psi for normal concrete)
28 day	5890 psi (vs 4700psi for normal concrete)

Note: The results met the ASTM C494 requirements for compressive strength

Flexural Strength (ASTM C78)

3 day	620 psi (vs 510 psi for normal concrete)
7 day	700 psi (vs 640 psi for normal concrete)
28 day	790 psi (vs 710 psi for normal concrete)

Note: The results met the ASTM C494 requirements for flexural strength

Technical Data Continued

Drying Shrinkage (ASTM C157)

3 day	92.9% of normal concrete
7 day	81.8% of normal concrete
14 day	87.5% of normal concrete

Note: Uniformity and equivalency testing was performed on **Concrete Supplement**™ itself in accordance with ASTM C494, Section 6. This testing included infrared analysis, residue by oven drying, and specific gravity.

Applications

For Concrete Mix Designs: Add 1.5 gallons (5.7L) of **Concrete Supplement**™ to each cubic yard (0.76m³) of concrete which shall contain not less than 517 pounds (234kg) of Portland cement and no more than 39 gallons (148L) of water. Limit slump to four inches (10.1cm). Finish surfaces promptly with a hard steel troweling. Do not dust surfaces with cement or other driers. Do not dispense additive onto dry cement.

For Mortar, Stucco and Grout: Mix 1 part **Concrete Supplement**™ and 10 parts water, then use as a gauging solution. Stronger dilutions may be used during colder temperatures or for faster set times.

For Bonding Applications: Mix 1 part of **Concrete Supplement**™ with 4 parts water. Stir into this solution Portland cement until a thick, paint-like consistency is reached. Apply this mixture to a roughened surface of the existing masonry just before applying the new concrete or mortar.

For Plugging Leaks: Mixing fresh Portland cement with undiluted **Concrete Supplement**™ will cause and almost instantaneous set. This "hot plug", while still putty-like, may be placed in an opening through which water is running in order to stop the leak.

For Cold Weather Protection: In usual mixes of concrete, 1.5 gallons (5.7L) of **Concrete Supplement**™ per cubic yard (0.76m³) will protect down to 20°F (7°C). At the ratio of 1 part **Concrete Supplement**™ to 10 parts of water, the gauging liquid protects masonry down to 12°F (-11°C).

Joint Details: A complete waterproof system requires particular attention to joint details. Floors should be designed with proper control and construction joints.

Applications Continued

Placing Concrete: All concrete shall be properly vibrated or consolidated and wood spreaders must be removed as the concrete rises in the forms. Whenever possible, concrete shall be placed continuously until the placement is completed. Construction joints shall be keyed with a 2" x 4" (5.1cm x 10.2cm) key. When placing is about to be resumed, the joint shall be thoroughly cleaned and treated with a slurry coat composed of 1 part **Concrete Supplement**™, 3 parts water and sufficient Type 1 Portland cement to form a thick, creamy mixture. Concrete shall be placed before the slurry coat dries.

Wall Finishing: After the forms are removed, all ties shall be cut back on both faces to a depth of approximately 1.5" (3.8cm). Any cracks or honeycombed concrete shall be cut back to sound concrete. These areas shall be grouted with a **Concrete Supplement**™ slurry coat, then filled with mortar consisting of 1 part Type 1 Portland cement and 2 parts sand, mixed with a solution of 1 part **Concrete Supplement**™ to 2 parts water.

Precautions

Pumping: No concrete shall be placed on wet or soggy ground without first laying and compacting a bed of broken stone or gravel of adequate thickness to prevent the mud from mixing with the concrete. A pump of sufficient capacity to keep water below the poured concrete shall be operated continuously during the placement and at least 24 hours thereafter. The excavated area must be prepared so that the water will easily drain to the pump without washing cement out of the newly placed concrete.

Water Pressure: In dealing with any structure subject to hydrostatic pressure, careful consideration must be given to the design of the members. Thickness and reinforcing must be capable of withstanding maximum potential heads. Possible floatation or any of the above factors should be subject to the design of a structural engineer.

Package Size

1 Gallon jug (3.79L)
5 Gallon pail (18.93 L)

Shelf Life

2 years in unopened container. Material must be agitated thoroughly before use.

Caution!

Avoid contact with eyes and skin. In case of such contact, rinse eyes thoroughly with water and wash skin with soap and water. If irritation persists, contact a physician. If swallowed, contact physician immediately.

See Material Safety Data Sheet for detailed information.

Use adequate ventilation. The use of a NIOSH/MSA approved respirator, safety goggles, and protective gloves is recommended.

FOR COMMERCIAL USE ONLY.
NOT FOR INTERNAL CONSUMPTION.
KEEP OUT OF REACH OF CHILDREN.

Spills and Disposal: Absorb with cat litter, saw dust, or other absorbent material. Place in covered container and dispose of in accordance with local, state, and federal regulations.

In case of a medical emergency call **INFOTRAC: 800-535-5053.**

Guarantee

Silpro LLC guarantees that their products are made of the finest raw materials under exacting care to produce products of the highest quality and will perform as stated when used in accordance with manufacturer's printed instructions.

Improper mixing, incorrect application or other factors beyond the control of the manufacturer may produce unsatisfactory results and cannot be held to be the manufacturer's responsibility. Silpro accepts no responsibility beyond the purchase price of the Silpro product used.

For further product information on **Concrete Supplement**™ consult your local dealer or call Silpro LLC at: **800-343-1501; 978-772-4444; FAX 978-772-7456.**

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