

# **CONCRETE ADMIXTURES** HIGH PERFORMANCE & SPECIALTY



WATER REDUCERS RETARDERS AIR ENTRAINERS ACCELERATORS SPECIALTY PRODUCTS



## CONCRETE ADMIXTURES HIGH PERFORMANCE & SPECIALTY

**Today's Concrete Practices** require precise time management and predictable results to meet the challenging needs of the construction industry. It has become necessary for concrete producers to meet both economical and environmental constraints, while the requirements for concrete performance have increased. These factors demand a blend of both innovative products and technical expertise.

The Euclid Chemical Company has been providing concrete technology solutions for over a century and has become accustomed to adjusting to the demands of the concrete industry while offering excellent service, exceptional quality and value. We strive to work as a partner with all those involved in the concrete construction design, planning and production processes.

This, along with our desire to bring the latest concrete technologies to our customers, makes Euclid Chemical the perfect partner in concrete construction. We are experts in all concrete applications including the following:

- Self-Consolidating Concrete
- Highly Durable Concrete
- Low Shrinkage Concrete Floors
- Roller-Compacted Concrete
- Freeze-Resistant Concrete

- Fiber Reinforced Concrete
- Concrete Paving
- High-Early Strength Concrete
- Pervious Pavement

### SERVICE BEYOND EXPECTATION

Backed by four decades of leading design expertise, our dispenser systems are known throughout the market for exceptional engineering and superior service.

The Euclid Chemical Company understands that accurate and reliable delivery is critical to our customers' integrity and profitability, and we support our industry associates with the flexibility of custom-built systems designed to meet their changing needs.

**Euclid's expertise**, quick service and field-proven performance provide customers the consistent accuracy and industry-leading dependability required in today's demanding construction environment. At the batch plant or an on-site remote location, it is quality, experience and employee dedication that sets our dispenser technology apart and delivers service that goes beyond your expectations. For technical support, our research and testing facilities are available to assist our customers' needs from concrete mixture design development to hardened properties testing.





## **HIGH PERFORMANCE & SPECIALTY ADMIXTURES**

### CHOOSING THE RIGHT CONCRETE ADMIXTURE

**Euclid Chemical concrete admixtures are developed to meet the challenges of specific applications.** Make an assessment of your individual application and select the ideal Euclid Chemical admixture or contact Euclid Chemical to ensure the right product is being selected.

### **HIGH PERFORMANCE CONCRETE ADMIXTURES**

**Euclid Chemical High-Performance Admixtures** are recognized by the field-proven brands of ACCELGUARD, EUCON, and PLASTOL. They meet the required ASTM Standards and ensure highly durable and predictable concrete for concrete projects. These products provide the highest quality concrete from basic to the most challenging applications.

- Accelerators (ASTM C494 Type C & E)
  - Retarders (ASTM C494 Type B & D)
- Air Entrainers (ASTM C260)
- Water Reducers (ASTM C494 Type A, D, & F)

#### SPECIALTY CONCRETE ADMIXTURES

**Euclid Chemical Specialty Admixtures** are products that have been developed to solve the most unique challenges in concrete construction, which address the demands of individual markets and new concrete technologies. These products help bring value, enhanced durability, and improved concrete performance for specific situations. Euclid Chemical is continually seeking solutions that bring the newest most innovative specialty admixtures to solve the most challenging applications and problems faced in the concrete industry.

- Alkali-Silica Reactivity
- Viscosity Modifiers
- Flowable Fill
- Corrosion Inhibitors
- Microsilica

- Anti-Washout
- Cement/Hydration Stabilizers
- Shrinkage-Reducing Admixtures
- Synthetic Micro and Macro Fibers
- Shrinkage-Compensating Admixtures
- Air Detrainers
- Integral Color
- Integral Waterproofing
- Workability Extending
- Efflorescence Control



## **HIGH PERFORMANCE CONCRETE ADMIXTURES**

#### PRODUCTS APPLICATIONS ACCELERATORS (ASTM C494 Type C & E) **CHLORIDE** Cold weather concreting Euclid's premier accelerators are engineered to decrease setting time Freeze-resistant concrete and increase early strength gain, particularly in cold weather, to expedite ACCELGUARD STANDARD • Fast track construction ACCELGUARD HE the start of finishing operations and reduce finishing time. In addition, Fast track repair projects they increase the early-strength level to permit earlier form removal and Ready mix decrease the overall construction time to maximize profitability. NON-CHLORIDE Precast/prestressed **ACCELGUARD 80** Euclid accelerators can also be used to increase freeze resistance to ACCELGUARD 90 provide concrete placement at temperatures down to 20 °F (-7 °C). ACCELGUARD ACN 200 ACCELGUARD NCA ACCELGUARD DSA ACCELGUARD G3 AIR ENTRAINERS (ASTM C260) **EUCON AIR MIX** Exterior concrete Designed to protect against freeze-thaw cycling, Euclid's air **EUCON AIR MIX 200** Freeze-thaw durability entraining agents provide exceptional freeze-thaw resistance by **EUCON AIR MIX 250** Readv mix developing a proper air-void system within concrete. Our advanced **EUCON AEA-92** Precast natural and synthetic air entrainers improve the workability and **EUCON AEA-92S** durability of exterior concrete projects and provide an effective, **EUCON AIR 30** economical alternative to more expensive materials. **EUCON AIR MAC12** RETARDERS (ASTM C494 Type B & D) **EUCON RETARDER 75** The EUCON series of retarders relieve many of the difficulties involved Hot weather concreting **EUCON RETARDER 100** Repair projects in placing and finishing concrete in warmer temperatures. Specifically EUCON NR Pumping concrete developed for hot weather concreting, our retarders delay the setting **EUCON LR** Bridge pours time and improve the hardened properties of concrete. **EUCON HC** WATER REDUCERS (ASTM C494 Type A & D) **EUCON A+** A wide variety of water reducers are available from Euclid Chemical Flatwork **EUCON LW** Residential that provide for the lower water content requirement and increased **EUCON WR** • General purpose concrete strength properties desired in today's evolved concrete designs. **EUCON WR 75** Ready mix Available in various chemistries, our reducers deliver a range of EUCON WR 91 Precast different setting, finishing and strength characteristics, ensuring you **EUCON NW** the right product and performance for all your concreting needs. **EUCON WRX MID-RANGE REDUCERS EUCON MR** Outstanding strength gain and enhanced finishability are just a Flatwork EUCON X-15 Residential few characteristics that Euclid's mid-range water reducers offer. EUCON X-20 Commercial Exceptionally versatile, Euclid's mid- range water reducers provide Architectural concrete **PLASTOL 341/341S** a 5-15% water reduction without excessive set retardation for PLASTOL 6420 Pumping improved workability and superior, long-term performance. Ready mix **EUCON MRX** Precast HIGH-RANGE WATER REDUCERS (ASTM C494 Type F) NAPHTHALENE BASED • High performance concrete Euclid provides a wide variety of both naphthalene and the latest Self-consolidating concrete polycarboxylate based high-range water reducers to aid in lowering EUCON 37 Pumping concrete water/cement ratios and increasing slump to produce flowable and **EUCON 1037** High early strengths Low water to cement ratios self-consolidating concrete. EUCON 537 (TYPE G) Ready mix EUCON SP Our high-range water reducers offer high early strengths and the Precast/prestressed enhanced workability and pumpability needed in today's competitive POLYCARBOXYLATE BASED concrete construction market. Contact Euclid Chemical to help you determine which product will best fit your applications needs. PLASTOL 5000 PLASTOL 6425 PLASTOL SPC PLASTOL 5500 PLASTOL 5700 PLASTOL 6400 PLASTOL 6200 EXT **PLASTOL ULTRA 109 PLASTOL ULTRA 209**

## **SPECIALTY CONCRETE ADMIXTURES**

The Euclid Chemical Company has developed a variety of specialty admixtures formulated to solve unique challenges in concrete construction, which address the demands of individual markets and new concrete technologies.

#### ASR CONTROL (ASTM C494 Type S)

Alkali-silica reactivity control admixtures prevent the formation of damaging gel, eliminating the need to ship non-reactive aggregates from distant locations.

#### VISCOSITY MODIFIERS (ASTM C494 Type S)

Viscosity modifiers are designed to control unwanted bleeding and segregation in self-consolidating concrete.

#### **FLOWABLE FILL**

Flowable fill additives in a ready-to-use liquid will create Controlled Low Strength Material (CLSM) for backfilling utility trenches, old mines and stabilizing substrates.

#### CORROSION INHIBITORS (ASTM C494 Type C & E)

Corrosion inhibitors will help extend the time to corrosion initiation and/or significantly reduce the corrosion rate of embedded metal in concrete containing chlorides in excess of the accepted corrosion threshold value in untreated concrete.

#### ANTI-WASHOUT (ASTM C494 Type S)

Anti-washout admixtures prevent the loss of cement and fine aggregate during the placement of underwater concreting.

#### **CEMENT HYDRATION STABILIZERS** (ASTM C494 Type S)

Cement hydration stabilizers offer a dual function admixture that will stabilize wash-out water to be recycled or can be used to stop hydration and extend the life of concrete.

#### MICROSILICA (ASTM C1240)

Microsilica (ASTM C1240) available in powdered or liquid form, this mineral admixture creates a denser, stronger, more durable concrete.

#### SHRINKAGE REDUCING (ASTM C494 Type S)

& SHRINKAGE COMPENSATING (ACI Type G component) These specialty admixtures are designed to significantly reduce the shrinkage that occurs during concrete drying. Shrinkage reducers will increase the performance, durability, and aesthetics of concrete structures.

#### MICRO & MACRO FIBERS (ASTM C1116)

Micro-and-macro synthetic fibers and steel fibers for shrinkage protection, temperature and shrinkage crack control and limited conventional steel bar/mesh replacement with engineering support.

#### **AIR DETRAINERS**

Admixtures designed to reduce or eliminate the air content in concrete.

#### WORKABILITY EXTENDING

Extended workability admixtures formulated using advanced timerelease polycarboxylate technologies to improve working time.

#### INTEGRAL CRYSTALLINE WATERPROOFING

Integral crystalline waterproofing admixture formulated to interact with concrete capillary pore structures.

#### **MCP ADMIXTURES**

Plasticizing, efflorescence-controlling, and water repellent products that improve the production efficiency, aesthetics, and overall integrity of manufactured (machine-made) concrete products.

#### **INTEGRAL COLOR**

Admixtures formulated from special pigments designed to color and beautify concrete, providing a permanent, uniform color that resists weathering and fading.

PRODUCTS	APPLICATIONS
EUCON INTEGRAL ARC	Ready mix/precast
	incluy mixprecust
VISCTROL EUCON ABS	<ul> <li>Control bleeding and segregation</li> <li>Precast self-consolidating concrete</li> <li>Ready mix</li> </ul>
EUCON EASY FILL	<ul> <li>Controlled low strength</li> <li>Pipe bedding materials (CLSM)</li> <li>Utility trenches</li> </ul>
EUCON CIA EUCON BCN	<ul> <li>Exterior steel reinforced concrete</li> <li>Structural concrete</li> <li>Parking decks</li> <li>Ready mix</li> <li>Precast</li> </ul>
EUCON AWA	<ul> <li>Underwater concreting</li> <li>Ready mix</li> <li>Cast in place</li> </ul>
EUCON STASIS EUCON DS EUCON WO	<ul> <li>Stabilizing wash water</li> <li>Long hauls</li> <li>Precast</li> </ul>
EUCON MSA	<ul> <li>High-strength concrete • Ready mix</li> <li>Low permeability • Precast bridge decks</li> </ul>
EUCON SRA FLOOR EUCON SRA-XT CONEX	Big box retail     Factories     Warehouses     Warehouses     Skating rink
PSI FIBERSTRAND FIBERS TUF-STRAND SF TUF-STRAND MAXTEN PSI STEEL FIBERS	Big box retail     Factories     Warehouses     Warehouses     Skating rink
EUCON AIR DOWN EUCON AIR OUT	Ready-mix concrete     Precast concrete     Concrete floors     Heavy-weight     concrete
PLASTOL AMP X3	• Ready-mix, mass concrete
EUCON VANDEX AM-10	Water treatment facilities     Parking structures     Tunnels     Vaults     Foundations     basements
EUCON HYDRAPEL EUCON PAVERTITE EUCON BLOCKTITE/ SYSTEM EUCON FOR-CAST (various)	<ul> <li>Concrete block</li> <li>Hollow-core plank</li> <li>Patio products</li> <li>Dry-cast pipe &amp; precast</li> <li>Pavers</li> <li>Concrete tile</li> <li>Cast stone</li> </ul>
COLORCRETE INTEGRAL COLOR (Powder) LIQUID INTEGRAL COLOR	Wherever integral colorants or colorant admixtures are specified

## **INDUSTRY LEADERSHIP**

For more than a century, The Euclid Chemical Company has served as a leading supplier to the concrete and masonry industry offering a full line of engineered concrete admixture and construction products marketed under the EUCO brand name. These products include concrete admixtures, block and masonry additives, curing and sealing compounds, epoxy adhesives, floor and wall coatings, structural grouts for columns, equipment and machinery, joint fillers and repair products. The Euclid Chemical Company strives to bring innovative technologies and products to the concrete market with industry leading customer service.

## **CUSTOMER SOLUTIONS**

The Euclid Chemical Company is unique in our offering of superior products, unparalleled customer service and industry support. The Euclid team delivers a range of value-added resources and indepth industry experience to architects, designers, engineers, building contractors and owners. Comprised of highly trained professionals who are available in local offices across the Americas, our experts are active members on industry technical committees including American Concrete Institute (ACI), International Concrete Repair Institute (ICRI) and American Society for Testing and Materials (ASTM). Our experienced field team is available to support you and your projects using Euclid Chemical solutions and products manufactured under the stringent standards of our ISO 9001 certified quality system. The Euclid Chemical Company works hand-in-hand with customers:

- supplying field evaluations, recommendations and application problem-solving on a project-byproject and technology basis.
- assisting in product selection, specification, installation and related technology.
- attending pre-design meetings, assisting in clarifying specifications and recommending product selection.
- supporting you by providing proper pre-installation instructions and methods for achieving quality results.

## LABORATORY SERVICES

Our world class Cement and Concrete Reference Laboratory (CCRL) inspected facilities are equipped with state-of-the-art technologies and staffed by an exceptional team of professional, ACI certified technicians. These outstanding resources provide The Euclid Chemical Company the capability to offer comprehensive analytic and petrographic evaluation and testing services via programs that conform to the standards prescribed by the American Society for Testing and Materials, the U.S. Army Corps of Engineers (USACE), the American Concrete Institute and the International Concrete Repair Institute.

## TRAINING

The Euclid Chemical Company generously shares product information and technical knowledge through training and seminars conducted for project owners, contractors, distributors and design professionals. Many programs are AIA/CEU registered, allowing eligible attendees to earn professional development hours. Euclid Chemical is proud to sponsor these opportunities for our associates and colleagues as part of our ongoing commitment to the concrete construction industry.

### **BUILDING GREEN**

The Euclid Chemical Company offers an extensive line of green products that are specific to LEED guidelines. The LEED (Leadership in Energy & Environmental Design) Green Building Rating System provides a national standard for defining an environmentally friendly, sustainable "green" building. Points awarded to building projects based on water savings, energy efficiency, materials and indoor environmental quality.

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