



ELEMIX Applies Engineered Sustainability to Concrete

ELEMIX concrete additive was engineered to make building and manufacturing with concrete a more sustainable endeavor. ELEMIX accomplishes this by dramatically decreasing the weight of concrete. This weight reduction, in turn, creates numerous sustainable benefits, including:

Reduced raw materials for structural support

Reduced energy expended for the exploration, extraction, transport, handling, and storage of lightweight aggregate

Reduced energy expended during concrete construction or manufacturing, including: transport, pumping, and erection

Improved seismic performance

Additionally, ELEMIX:

Reduces water usage

Ensures long-lasting durability

Improves thermal performance of concrete

Reduces wear and tear on ready-mix equipment

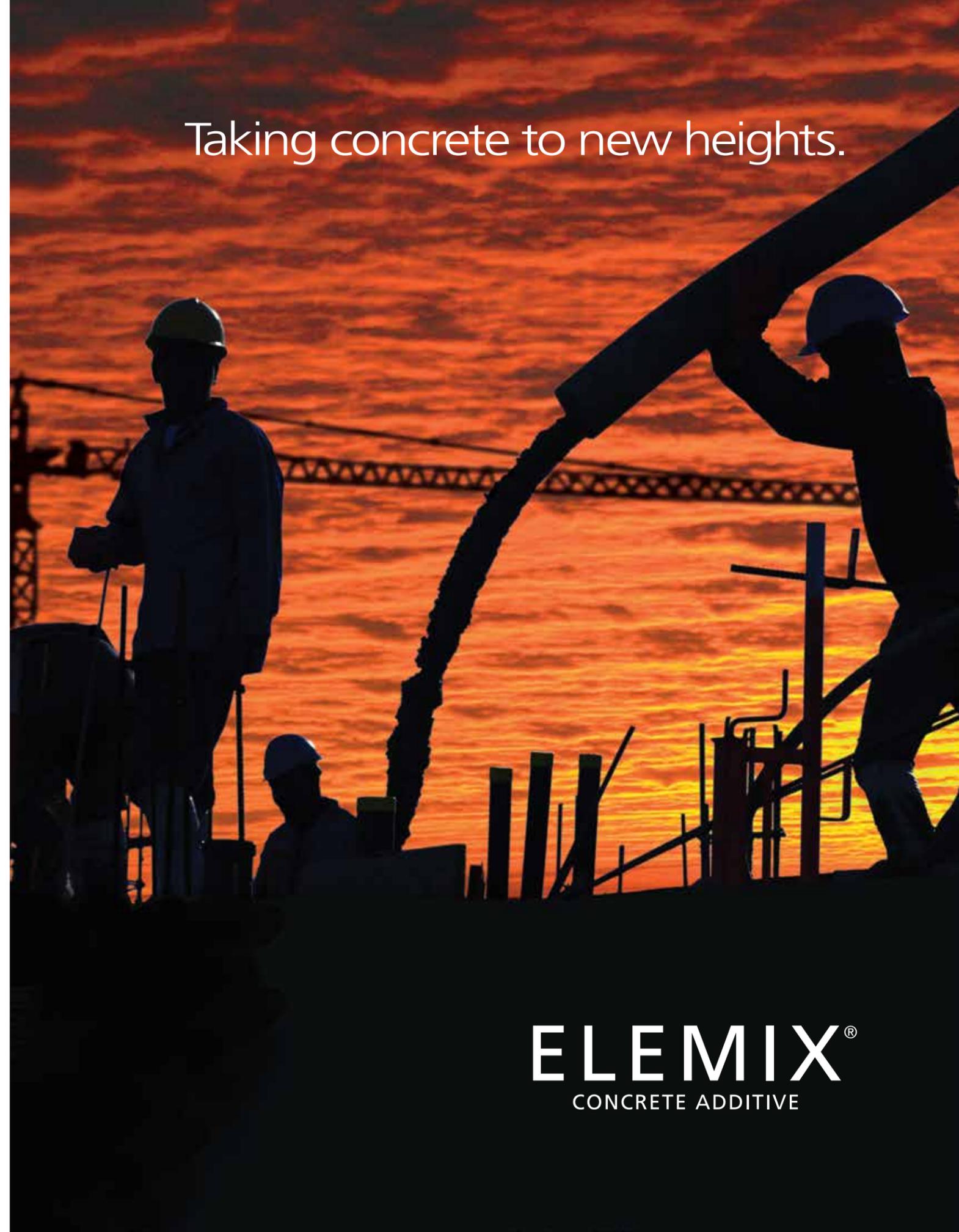
ELEMIX[®]
CONCRETE ADDITIVE

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Taking concrete to new heights.



ELEMIX[®]
CONCRETE ADDITIVE



Revolutionary ELEMIX® concrete additive solves problems with lightweight concrete and more.

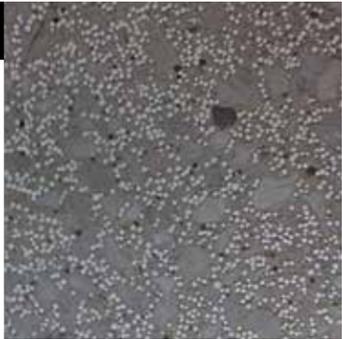
The safety, environmental, and financial benefits of making concrete lighter are numerous. But efforts to solve concrete's weight problem have long produced challenges for architects, engineers and builders. Chief among them: the local sourcing and variability of natural lightweight aggregates; the transport and storage of manufactured lightweight aggregates; and the pumpability, workability and durability of lightweight concrete mixes.



What is ELEMIX?

ELEMIX is an innovative and proven concrete additive made of specially engineered polymeric spheres – lightweight synthetic particles (LSP) – that disperse uniformly throughout a concrete mix to replace a significant volume and weight of both normal and lightweight aggregate.

ELEMIX evenly disperses throughout a mix to ensure uniform strength.



How ELEMIX Stacks Up to Traditional Mixes

Approximately 1 lb. of ELEMIX concrete additive replaces 100 lbs. of normal weight aggregate or 50 to 75 lbs. of lightweight aggregate.

Compare three mixes, designed for a variety of strengths - a traditional normal weight mix, a traditional lightweight mix, and a mix that incorporates ELEMIX concrete additive to replace normal and lightweight aggregates. ELEMIX dramatically decreases the weight.

Desired Mix Strength psi	Normal Weight Mix pcf	Traditional Lightweight Mix pcf	ELEMIX and Lightweight Aggregate pcf
3000	145	110	95
3500	145	110	95
4000	145	110	100
4500	145	110	100

Use ELEMIX concrete additive for:

- Elevated concrete decks
- Low-density fill
- Toppings
- Precast concrete
- Tilt-up
- Poured-in-place walls
- Manufactured concrete products

Problems ELEMIX solves

Consistency

Natural and manufactured lightweight aggregates are entirely variable. This results in concrete mixes that are variable – in strength, weight, durability and workability. ELEMIX particles reduce this variability.

Availability & Handling

When natural and manufactured lightweight aggregates are not available locally, they must be shipped. In shipment and during storage, many aggregates must be carefully maintained in temperature and moisture content. ELEMIX is readily available worldwide and does not require special handling or storage considerations.

Pumpability

With ELEMIX, there are no requirements for air-entraining admixtures that can effect slump and pumpability. High pump pressure can result in rejected batches and create a dangerous work environment. ELEMIX actually reduces pump pressures up to 50%, ensuring concrete integrity post-pumping and creating a safer jobsite.

Durability

Potential for excessive bleed water, plastic shrinkage cracks and delamination – all problems associated with variable water content in traditional lightweight concrete design – are minimized with ELEMIX.

Thermal Resistance

Compared to other building materials, such as wood, concrete is poor thermal insulator. By reducing the weight of concrete with ELEMIX, from 150 pcf to 120 pcf, its insulation value doubles.

Resources

A product MANU-SPEC 3-part specification was created in partnership with REED Construction Data Smart Building Index, designed for ease of use to the engineer, allowing a single concrete specification to be used in all applications.

For complete technical documentation, test data and case histories visit www.ELEMIX.com.



Watch an educational video.

