

What are the core benefits of ARIDUS concrete?

ARIDUS Rapid Drying Concrete allows you to install your flooring products without the need for costly and time-consuming topical products.

The result: no material costs for moisture mitigation products and a reduction in your planned construction schedule.

What is ARIDUS Rapid Drying Concrete?

ARIDUS concrete is an exclusive, patented concrete mix design from U.S. Concrete, which enables faster, more effective floor topping installations.

What are the moisture-related challenges of flooring installations

While recent changes in environmental regulations to restrict VOCs in flooring adhesives have reduced the environmental impact of new flooring installations, the new adhesives are less durable and more susceptible to moisture-related issues. In response, contractors have been forced to combat the problems by adding sealers or lengthening the drying time of the concrete, in hopes of reducing the risk of liabilities associated with the failures of floor coverings. In addition, these remedies increase the construction time and costs associated with these projects. And none of these remedies address how to reduce the moisture. ARIDUS concrete was developed to combat the construction delays, cost overruns and moisture-related flooring issues encountered when applying moisture-mitigation products.

What are the impacts of flooring installations with moisture-mitigation products?

- Construction delays
- Cost overruns
- Moisture mitigation
- Environmental hazards
- Liability issues
- Damaged reputation

Why is ARIDUS Concrete superior to late-stage moisture sealers?

The problems associated with sealers:

- Moisture sealers have no effect on the moisture within concrete.
- Sealers add to project cost and are not 100% effective

NOTE: to learn more, refer to Moisture Mitigation Comparison document

What are the key advantages of ARIDUS concrete?

- Eliminates moisture issues: ARIDUS concrete takes moisture totally out of play before the floor is installed. In contrast to conventional concrete, ARIDUS concrete consumes excess water in the concrete through more efficient hydration, thereby preventing moisture problems from the very beginning.
- Eliminates costly and time-consuming moisture mitigation systems or extended drying time, thereby offering schedule savings

- Superior performance as compared to conventional concrete:
 - High early strength
 - Superior compressive strength
 - Very low permeability
 - Significantly reduced curling
- ARIDUS concrete is safe for flooring in as few as 30 days
- ARIDUS Lightweight can be installed in 90 days or less, when most lightweight slabs take more than a year to dry to acceptable levels.

What are the most noted construction benefits?

- No material cost for curing compounds and sealers
- No “cost of time” associated with surface preparation prior to application of a surface moisture mitigation system
- No “cost of time” or labor costs for applying first and second moisture mitigation system coatings
- No “cost of time” to cure a surface moisture mitigation system
- No “cost of time” associated with closing down a work area while applying a surface moisture mitigation system
- No “cost of time” or labor costs associated with sand blasting the surface as part of the floor preparation.
- No “cost of time” or labor associated with grinding edges due to curling
- Positive schedule impact due to 3-day strength

“No longer will project schedules need to be disrupted by extended drying times or to apply a topical moisture and pH suppression system.” Peter Craig, independent concrete floor authority and Lead Instructor for the ICRI Moisture Testing Certification Program.

Is ARIDUS an admixture or special mix design?

ARIDUS is a rapid drying concrete that will dry in as little as 30 days. Though the mix design has many admixtures in it, it is not solely an admixture that makes the concrete dry faster, it is a special mix design.

How does ARIDUS finish compared to regular concrete?

ARIDUS concrete is a low w/c ratio high performance concrete. As such, it will be a little stickier as it is a chemical slump as opposed to a water slump.

ARIDUS is designed to dry rapidly and a byproduct of that is high early strength. ARIDUS concrete will finish like a post tension mix design.

What are the primary markets for ARIDUS concrete?

Markets where floor failure is not an option! Construction sectors that have experienced the most “pain” and had the most issues with vapor emission related flooring problems are hospitals, schools and high tech. However, there is an opportunity to use ARIDUS anytime floor covering requires a level of concrete “dryness” prior to installation.

How does ARIDUS concrete compare to other products in the market such as Rapid Set Concrete?

Comparing ARIDUS to Rapid Set Concrete is like comparing apples to oranges. ARIDUS is a rapid drying concrete designed to provide a concrete dry enough for floor coverings to be applied in a very short time period. On the other hand, Rapid Set Concrete is designed to give a high early strength concrete. These are two different products with two different objectives.

Does ARIDUS concrete work in lightweight concrete?

ARIDUS lightweight concrete is available but due to the amount of moisture in lightweight aggregates ARIDUS will take 90 days to dry.

What if it is going to rain on the pour day?

- With ARIDUS concrete, water content is critical. Cancel the pour if moderate to heavy rain is expected during placement. (In general rain would be a problem for ARIDUS flat work if it would be a problem for normal concrete flat work.) If there is a question contact your ARIDUS concrete supplier.

What if it rains on the slab after curing is completed and before flooring installation?

- ARIDUS concrete, that has already reached the required level of “dryness” will reach the required slab dry condition in approximately 16 days after a rain.

Is a vapor barrier required under a slab-on-grade?

- A vapor barrier is mandatory. (15 mil is recommended) The vapor barrier has to be continuous with no breaks and no punctures so ground water will not be in play. Overlapping and taping edges are recommended.

Is sand allowed over the vapor barrier?

- No, the vapor barrier must come in direct contact with the concrete.

Can ARIDUS concrete be pumped?

- Yes. If an ARIDUS primer is used it can be pumped onto the slab. If standard primer is used it needs to be diverted from the slab. A minimum of a 4” line is required. ARIDUS has been pumped over 300’ and at a rate of 85 cy/hr.

What if the slump is not correct at the job site?

- Central Project Manager will make adjustments.

Can water be added to adjust slump?

- No, only the allotted amount of mix water can be added.

Are there any issues with slump or slump life?

- No there are no issues. Slump life has been held for 3+ hours utilizing extended life super plasticizers.

Can ARIDUS Concrete be adjusted for the ambient temperature conditions?

- Yes, ARIDUS concrete set time can be adjusted with retarders or accelerators.

What concrete cure is recommended?

- ARIDUS concrete should be cured with a lay flat plastic covering for 3 days.

Can curing compounds and / or sealers be used?

- Nothing can be added to the surface of the concrete for curing except plastic.

How do we handle a vapor barrier around a footing?

- The best option is to place the vapor barrier entirely around the footing or grade beam. If that is not an options care needs to be taken with the vapor barrier at the joints.