

**Gymnasium  
Brown Deer High School  
Milwaukee, WI**



Photo Renderings by Plunkett Raysich Architects, LLP



**“Aridus significantly  
cuts drying time”**

**Project Team**

- ▶ Aridus® Licensee/Concrete Supplier: Prairie Materials
- ▶ General Contractor: C.G. Schmidt
- ▶ Engineer: Giles Engineering

**Seeking a Reliable, Fast-drying Solution**

Project leaders at C.G. Schmidt chose Aridus® for a side room near a high-school gymnasium they were building in Milwaukee. The 12’ x 40’ slab-on-grade surface would ultimately be covered with vinyl sheeting.

“Vinyl is impervious and traps any moisture that rises up, resulting in a bubbled floor,” Schmidt explained. “To prevent failure, flooring subcontractors can demand that topical applications be used when slabs don’t reach the specified relative humidity (RH) on time, which takes anywhere from \$1.50 to \$10 per square foot onto our costs, usually very late in the construction cycle. You can see why a reliable, fast-drying alternative sounded good to us.”

**The Downpour after the Pour**

Schmidt needed proof positive that the 5-inch slab had reached 85% RH or less before flooring could be laid. “This wasn’t a dry environment, which is typical of most slabs we place,” he noted. “But then a sudden rainstorm flooded the area. Thanks to a roof conductor that hadn’t been properly tied off, we had standing water on the surface for a full day.”

At first Schmidt doubted the slab would make its numbers. But tests by Giles Engineering of Waukesha showed great results at just 28 days. “Only one probe showed RH over 85%, and that was because the sheeting around it had gotten kicked up,” Schmidt says. “By 45 days we had RH of 69% to 73% — and the flooring guys were ready to go.”

**Proof Positive**

- ▶ Tests by Giles Engineering far exceeded the target RH, ranging from 62% to 67% at 28 days
- ▶ 7-day breaks came in at 8,400 psi

**Aridus® At-A-Glance**

**Problem:** Floors Gone Bad

Aridus® Rapid Drying Concrete is the first ready-mix concrete solution for preventing moisture-related floor covering failures, an industry-wide problem that costs millions of dollars annually in damage, downtime, repair and replacement.

**Impacts of Flooring Failures**

- ▶ Construction Delays
- ▶ Cost Overruns
- ▶ Moisture Mitigation
- ▶ Environmental Hazards
- ▶ Liability Issues
- ▶ Damaged Reputation

**Options:**

Today’s options attempt to seal in the moisture, but none get rid of the problem within the concrete, nor do they address RH. In addition, these costly and late stage treatments do not prevent the moisture problems from the beginning.

**Why Aridus®?**

Aridus® Concrete is a scientifically engineered Rapid Drying Concrete that consumes excess water, thereby preventing moisture problems from the very beginning by accelerating the concrete drying time.

- ▶ Eliminates moisture issues
- ▶ Eliminates costly and time-consuming moisture mitigation systems or extended drying time, there by offering schedule savings
- ▶ Eliminates moisture related environmental hazards
- ▶ Superior performance as compared to conventional concrete:
  - High-early strength
  - Superior compressive strength
  - Improved drying shrinkage properties
  - Very low permeability
  - Significantly reduced curling
- ▶ Your insurance policy

**Recognition:**

**Editor’s Choice Award: 2013 World of Concrete “Most Innovative Product Award Winner”**: Category: Concrete Construction Materials