P R O S O C O

PROSOCO
SINCE 1939

800-255-4255 ● www.prosoco.com

Air and moisture barrier

Fact sheet

Superior technology for better buildings

Energy Savings

1. Up to 40 percent of all building heating and cooling costs are wasted by uncontrolled air movement through wall assemblies.

2. A correctly installed air barrier on sheathing or CMU backup eliminates that energy and monetary waste.

Water-based, fluid-applied PROSOCO R-GUARD™ air and moisture barrier is lab-tested and field-proven to stop air movement through wall assemblies of OSB, DensGlass, plywood, CMU backup and more.

3. More owners than ever are demanding energy-efficient buildings.

4. Increasingly, state building codes mandate energy-efficient buildings

5. Many government and private owners want tax-saving LEED building certification. (The Los Angeles Community College system, for example, has 54 projects that will be LEED certified.)

Using PROSOCO R-GUARD™ can earn you LEED certification points.

6. The most important requirement for LEED certification is energy efficiency.

7. An energy-efficiency technology pay-back of 5 years or less is considered very fast.

8. In most cases the energy pay-back on a coating air barrier such as PROSOCO R-GUARD is less than 4 years.

9. If you consider the energy costs over the useful life of a building, an owner will pay only $1.31/sq. ft. to install a coating air barrier. It will eventually cost an owner $14.48/sq. ft. NOT to install it.

Although it ranks among the most effective air and moisture barriers on sheathing or CMU backup, PROSOCO R-GUARD™ is among the least expensive to apply.

Mold Prevention

1. Prolonged moist conditions in wall assemblies cause mold. Mold litigation is a billion-dollar construction industry problem.

2. 99.99% of wall moisture gets there by air leakage. That leakage can be avoided by correctly installed vapor-permeable air barriers.

3. Correctly installed air and moisture barriers also keep rainwater out of wall assemblies.

4. Some air barriers are permeable or “breathable” – they let small amounts of water vapor diffuse through them. Some are not breathable.

5. Water vapor diffusion through wall assemblies is a necessary and natural process.

6. Water vapor that can’t diffuse through wall assemblies may be trapped in the wall assembly. There, it has potential to condense into mold-causing moisture.

7. Correctly installed vapor-permeable air and moisture barriers let water vapor from inside buildings diffuse harmlessly out of the wall assembly.

8. They also keep air-carried moisture and rain from getting into the wall assembly from outside. The prolonged moist conditions mold needs can’t occur. Niether can the mold.

PROSOCO R-GUARD™ air and moisture barrier is a “breathable” vapor-permeable system. It doesn’t trap moisture in walls and is proven to resist mold growth.

“Air barriers cannot be dealt with without understanding that they are part of a wall assembly.”

--N.B. Hutcheon’s CBD 48 Requirements for Exterior Walls.

Code Compliance

1. Two states – Massachusetts and Wisconsin – already require air barriers on new construction.

2. Twenty-one other states are considering adding that requirement.

3. The Air Barrier Association of America predicts a national air and moisture barrier code by 2010.

4. The HVAC engineers association (ASHRAE) is moving to require correctly installed air barriers in all building codes.

5. To be correctly installed, air and moisture barriers must cover the sheathing or CMU backup 100 percent. That includes transitioning, with no loss of integrity, across all the different materials in the wall assembly.

PROSOCO R-GUARD™ air and moisture barrier is easily applied across the spectrum of materials used in typical wall assemblies.

6. Some fluid-applied air barrier products contain solvents that present a fire and explosion hazard. those solvents expose workers to fumes and may not comply with applicable volatile organic compound regulations.

Water-based PROSOCO R-GUARD™ contains no dangerous solvents, takes minimal safety gear, and complies with all known U.S. VOC-requirements.

7. Rips, tears, even tiny staple points in fabric sheet wraps let moisture-carrying air shoot into the wall assembly, causing the very problems the codes are designed to prevent.

Unlike fabric wraps, seamless, structural, continuous PROSOCO R-GUARD™ won’t rip, tear or detach from sheathing or CMU backup. It uses no staples or nails that can cause leaks.

8. During constuction delays, some air barrier materials degrade from exposure to weather and sunlight until they are out of compliance.

PROSOCO R-GUARD™ air and moisture barrier is UV stable and resists direct exposure to weather for up to 6 months.

Fact Sheet Sources

Investigation of the Impact of Commercial Building Envelope Airtightness on HVAC Energy Use, National Institute of Standards and Technology (NIST)

The ABCs of Designing and Constructing Educational Facilities, Building Design & Construction webcast

LEED Green Building Rating System for New Construction

www.moldupdate.com

www.airbarrier.org

www.aia.org

www.architects.org

U.S. Dept. of Energy