

Green FAQ Sheet



What is GREENGUARD?

The GREENGUARD Environmental Institute (GEI) is an industry-independent, non-profit organization that oversees the GREENGUARD Certification Program. The program focuses on indoor air quality by testing products for a variety of volatile organic compounds (VOC).

When did GEI begin certifying products?

Since 2002 close to 100,000 products have been *GREENGUARD Indoor Air Quality Certified*. The products range from furniture to insulation. The majority of the largest HPL manufacturers are included on this list.

How does GREENGUARD Certification differ from other standards?

GREENGUARD Certification and testing is considered a leading standard for measuring indoor air quality because it:

1. Focuses on indoor air quality vs. outdoor air quality.
2. Tests for many different kinds of VOCs.
3. Tests a product's performance, rather than simply reviewing its technical data.
4. Requires regular retesting (ITW TACC's certified products are tested quarterly).
5. Is administered by GEI, an ANSI-authorized standards developer.
6. Offers a more stringent testing standard for *Children & Schools*.

Can a construction project be GREENGUARD Certified?

Construction project cannot be certified for its low VOC emissions.

No, only products can become *GREENGUARD Indoor Air Quality Certified* or gain *Children & Schools* status. GEI recently started a GREENGUARD Mold Protection Program™ that can certify buildings as mold resistant. But its focus is much different than testing for low-emitting products.

How do products become certified?

Manufacturers submit their products to a 3rd party laboratory for “dynamic chamber” testing to measure emissions according to GEI's requirements. All results are confidential between lab and manufacturer. GEI is only told when a product passes testing. Those are the products that are licensed to carry the *GREENGUARD Indoor Air Quality Certified* mark.



What is *Children & Schools* Certification?

GREENGUARD Children & Schools looks beyond traditional VOCs and verifies low-emissions of phthalates and other hazardous chemicals. GEI created the standard because some designers want building products that account for children's greater sensitivity. According to GEI, children are more

susceptible to environmental toxins than adults. Pound for pound, children consume more food and water, and have higher inhalation rates than adults.

When did adhesives and sealants first become GREENGUARD Certified?

ITW TACC's Z Solvent-Free (aka C357/T357/S162) was the first adhesive of any kind to pass GREENGUARD's testing, and became certified in May 2005. It is still the only contact adhesive with such status.

For sealants, ITW TACC's Miracle/Kingco water-based duct sealants became the first products of their kind to gain GREENGUARD Certification in December 2005. Four duct sealants with distinct formulas achieved Certification: Miracle/Kingco's Ultraseal 970, M-181, D-619 and Glenkote Sealflex.

All ITW TACC GREENGUARD Certified products have also earned *GREENGUARD Children & Schools* Certification.

Where is GREENGUARD specified in building requirements?

Increasingly, GREENGUARD is becoming a part of building project designs. Following is a list of entities that reference or specify GREENGUARD Certified products. It is updated regularly on GREENGUARD's web site at www.greenguard.org/Default.aspx?tabid=89. Not all of these references require low-emitting adhesives or sealants.

- Many USGBC's LEED Green Building Rating Systems www.usgbc.org/LEED
- The Collaborative for High Performance Schools (CHPS) Best Practices Manual, Volume III www.chps.net
- [Green Guidelines for Healthcare Construction](#)
- National Association for Home Builders' [Model Green Home Building Guidelines](#)
- City of Portland's [G/Rated Tenant Improvement Guide](#)
- Washington Sustainable Schools: [Protocol for High Performance School Facilities](#)
- New York City Department of Design and Construction [Office of Sustainable Design Specifications](#)
- City of Aspen and Pitkin County: [Efficient Building Ordinance](#)
- City of Boston Environment Department [Guidelines for High Performance Buildings and Sustainable Development](#)
- (Seattle) King County [Online Resources for Built Green Projects](#)
- San Francisco [Practical Tools for Green Building Design & Analysis](#)
- City of Santa Monica [Green Building Materials Selection and Specification Guide](#)
- Sustainable Building Industry Council www.sbicouncil.org/

These references do not necessarily require GREENGUARD Certified adhesives or sealants. However, as GREENGUARD becomes more recognized in adhesive/sealant markets, specifiers and users will better identify ITW TACC's certified products with safety, code-compliance and high quality.

LEED®

What is LEED?

LEED is an acronym for *Leadership in Energy and Environmental Design*, a green building rating system and certification program developed by the *United States Green Building Council* (USGBC).

What is the USGBC?

The USGBC is a non-governmental association made up of over 6,000 architectural firms, engineers, project managers, manufacturers, and any organization interested in promoting green building initiatives. For more information on the USGBC and LEED, go to www.USGBC.org.

What are the benefits of building a LEED project?

Benefits are different for the various parties involved:

- Building and business owners – reduced building energy and maintenance costs; tax breaks in some cases.
- Building occupants – provides a safer environment designed to better co-exist with the natural environmental setting. It is believed this leads to greater employee productivity and fewer sick days.
- Architects, designers and project managers – LEED helps protect them from sick-building liability, and it gives them a high-profile, differentiated project to promote their firms.
- Jurisdictional building authorities – it is believed LEED increases property value and reduces lawsuits and complaints related to sick-building syndrome and from environmentalists.

How does a LEED project get started?

Building statutes may require LEED. Or a project owner and architect can request it. Usually a LEED AP (Accredited Professional) will oversee registering the project with USGBC and steward required documentation.

How do LEED rating systems work?

The *LEED Green Build Rating System*™ provides credit points that lead to certification for meeting various standards specific to a type of building construction (new, remodel, commercial interior, residential, etc.). LEED's primary rating system is LEED-NC, which designers use for 80% of LEED-certified projects. Others are LEED-CI, LEED-Retail, and LEED for Schools. As of January 2007, there were about 3,000 registered LEED projects in progress, and close to 700 LEED certified. A project is not certified until completion and compliance verified through USGBC's documentation process.

The more points a project gets, the higher the LEED Certification level it can achieve. The levels are, from highest to lowest: Platinum, Gold, Silver and Certified. Points are generated by meeting certain environmental requirements, for example some of these are:

- Sustainable Sites
- Water Efficiency
- Energy & Atmosphere
- Materials & Resources
- Indoor Environmental Quality

How does LEED affect adhesives and sealants?

It is in the area of indoor environmental quality that adhesives play a role with LEED. A credit can be earned for *EQ Credit 4.1: Low Emitting Materials: Adhesives & Sealants* only if all adhesives and

sealants applied on site within the building's weatherproof system comply with SCAQMD's (South Coast Air Quality Management District in California) Rule 1168. USGBC credit interpretations have decided this credit is based on VOC content only.

EQ Credit 4.1 is found in most LEED rating systems, and is earned in about 80% of all LEED certified projects.

Can other LEED credits be earned using some of our products?

Yes. There are two other credits we have identified that some of our products can contribute to. First, using low-VOC adhesives and sealants (and other low-emitting building materials) can help keep indoor VOCs low, which is necessary for VOC testing which is usually required to earn a point for *EQ Credit 3.2: Construction IAQ Management Plan: Before Occupancy*.

The second additional LEED point that can be earned with our products relates to GREENGUARD certification and LEED's Innovation in Design credits. *ID Credit 1-1.4: Innovation in Design* offers an additional point for surpassing LEED requirements in any specific category. Because GREENGUARD certification proves safe emissions (vs. content), *GREENGUARD Indoor Air Quality Certified* products—and to a greater degree *GREENGUARD Children & Schools Certified* products—go beyond LEED requirements in EQ Credits 4.1. Use of GREENGUARD products gives LEED project managers a claim for ID Credit 1-1.4, which is then decided upon by the USGBC.

Can a product be LEED Certified?

No, only buildings can gain LEED Certification. Specific types of products and processes may be used by a project to gain LEED Certification. The products play an important role but are not LEED certified.

Where is LEED required?

As of February 2007, 12 U.S. federal, 21 state, 59 municipal, 10 county agencies, and 31 higher learning schools, and three K-12 school systems, have written LEED Certification requirements or incentives into their by laws. Go to www.usgbc.org/DisplayPage.aspx?CMSPageID=1496 for updated lists.

ITW TACC's "Green" Products

QUALIFICATIONS

- **Contributes to 3 LEED® Credits**
- **SCAQMD-compliant**
- **GREENGUARD® Indoor Air Quality Certified**
- **GREENGUARD® Children & Schools Certified**

Contact adhesives for bonding high-pressure laminate, decorative metals and phenolic-backed veneers to a variety of substrates:

Z Solvent-Free Postformable Adhesive
CONBOND C357 Solvent-Free Adhesive
STA'-PUT S162 Solvent-Free Adhesive
TACC T357 Solvent-Free Adhesive

Duct sealants for sealing HVAC ductwork and joints:

Miracle/Kingco Ultraseal 970
Miracle/Kingco M-181
Miracle/Kingco D-619
Miracle/Kingco Glenkote Sealflex

QUALIFICATIONS

- **Contributes to one LEED® credit**
- **SCAQMD-compliant only**

Contact adhesives for bonding high-pressure laminate, decorative metals and phenolic-backed veneers to a variety of substrates:

CONBOND C330 Contact Adhesive
STA'-PUT S160 Contact Adhesive
TACC T541 Contact Adhesive
CONBOND C5800 Low VOC Bulk & Canister
STA'-PUT SP80 Low VOC Bulk & Canister
TACC T1080 Low VOC Bulk & Canister

Duct sealants for sealing HVAC ductwork and joints

Miracle/Kingco Ultratack Duct Liner Adhesive
Miracle/Kingco PF-101/PF-102 Duct Liner Adhesive
Miracle/Kingco PF-701/PF-702 Coil Line Insulation Adhesive
Miracle/Kingco LA-76 Lagging Adhesive

Construction adhesives for residential and commercial buildings:

Miracle SFA-1168 Subfloor Adhesive
TACC T1168 Subfloor Adhesive
Miracle SCS-100 Sound Control Sealant