

Center for Green Technology

Hosts Field-Applied UV Demonstrations

By Jeff Stines

Just weeks after RadTech North America's Technology Conference and Exhibition concluded with a record turnout of interested end-users, UV curing returned to Chicago with a hands-on demonstration of field-applied UV curing at the trendsetting Chicago Center for Green Technology (CCGT).

As one of the most comprehensive green design educational resources in the Midwest, CCGT promotes and advances sustainable homes, workplaces and communities through educational programming and training; research and demonstrations; and by acting as a resource network. One of their programs—Green Tech U. seminars—was developed in response to an increasing demand for educational resources for green technology in Chicago. These seminars provide opportunities to increase knowledge of sustainability, green building and public policy while meeting like-minded people and expanding professional networks.

RadTech members from American

Ultraviolet and Cytec Industries hosted a CCGT Green Tech U. seminar for a classroom full of installers, manufacturers and architects. This free, two-hour seminar on field-applied UV included a live demonstration.

“We recently completed a grocery store renovation

project,” said Eduardo Proenza, an attendee who heads a Chicago-based architectural firm and is a CCGT regular. “We had to refinish the concrete floors quickly in order to minimize the store's downtime, so we went with a polishing technique. Had we known about UV-curable concrete floor coatings we might well have recommended them to the customer instead.”

Rich Mandich, a consultant for American Ultraviolet, noted that's a common reaction. “When people see what UV can do compared with traditional coatings, they are ready to switch,” said Mandich. “UV offers them a way to protect surfaces with equal or better performance, but it's the speed at which the job can be completed that really excites them.”

Speed can often be a problem for conventional field-applied coatings, especially where loss-of-service can be a costly dealbreaker. With UV, the coating is instantly cured and ready for furniture or carpets to be replaced, and ready for use.

Co-presenter Richard Mackiewicz, of Cytec Industries, discussed the advantages and return-on-investment in UV for finishing floors, countertops, bathtubs and other materials. Today, UV materials are found in everything from eyeglass lenses and magazine covers to car headlights, but only recently has UV expanded from factory-applied applications to the field.



CCGT Director Stephen Bell introduces students to the Field-Applied UV Curing Seminar.



Rich Mandich applies a UV coating to wood samples.



Rich Mandich uses a handheld lamp to cure the UV coating.

“Field coatings have to be more flexible and more robust since you cannot control the process in a living room or warehouse the way you can on an assembly line,” said Mackiewicz. “Now there are UV materials that make it easier to cure under a wider range of conditions. This can make UV very field-friendly since UV curing can be done over a wide temperature range—which can be common in commercial and residential settings.”

Wide-ranging curing conditions is an issue for equipment suppliers as well. “We’ve been making UV curing equipment for every kind of project, but when you design equipment for the field it needs to be safer, more compact, lighter, simpler to operate and able to run on less energy,” added Mandich. “That pushes engineers to think about UV equipment in a new way.”



Rick Mackiewicz shows samples of tile, wood and marble coated with UV materials.

One of those new ways is UV curing using handheld lamps. Mandich demonstrated that technology using a Porta-Cure® handheld UV lamp that he plugged into one of the classroom’s electrical outlets.

He was able to pass the products around just moments after they were cured. The audience checked the coating’s toughness by rubbing, scratching and gouging at the finish with fingernails, coins and pocket knives. “It was impressive in how easy it seemed,” added Proenza. “Just turn on the switch, pass it over the coating and it’s done.”



Attendees poke and prod the samples just cured in front of them.

CCGT was happy with the seminar. “The UV demonstration is a perfect fit for us,” said Stephen Bell, director of the Chicago Center for Green Technology. “Our mission is to educate people, including local professionals, about more eco-friendly technologies and processes. Our resource center has a large collection of green building materials, including new woods, composites and concrete. So expanding into green processes to finish those same materials is a natural extension of what we’re doing.”

—Jeff Stines is vice-president of Marketing and Communications at American Ultraviolet in Lebanon, Ind.

Chicago Center for Green Technology

CCGT is the first rehabilitated municipal building in the nation to receive the LEED® Platinum rating from the U.S. Green Building Council. The building was dedicated in 2002 and has become a national model for sustainable design and technology.

The **Green Tech Resource Center** at CCGT is an invaluable place for those interested in learning about sustainability, green technology and green buildings. It is a must-see for builders, developers, facility managers, architects and homeowners looking to incorporate sustainable design practices and green materials into their next building project. The Resource Center is free, open to the public six days a week and accessible to anyone.

Guided and Self-Guided Tours

Guided tours are available for groups greater than 10 and no more than 50 people. Tours are offered Monday through Saturday at 10:30 a.m. and 1:30 p.m. A minimum of two weeks advanced registration is required. Guided tours are subject to availability. Groups larger than 30 may not be able to be accommodated in a single tour. Smaller groups are encouraged to take a self-guided tour during business hours. Self-guided tour brochures are available at the front desk or can be downloaded from the CCGT website at www.chicagogreentech.org. Brochures can be picked up anytime during normal operating hours.