

TECHNICAL DINNER MEETING: 28 AUGUST 2018



SoCAL CHAPTER

Concrete Deck Moisture Issues

Presented by

Ken Konczal, CSI, CDT, LEED O+M – Sika Sarnafil



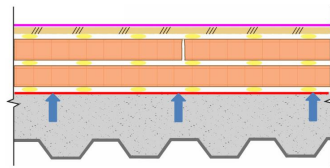
HOW WET IS THE CONCRETE - CURRENT TESTING METHODS

- ASTM D4263: "Plastic Sheet Test"
- ASTM F1869: "Salt Dome Test"
- ASTM F2170: "RH Probe Test"
- ASTM F 2659: "Hand held surface meters"
- Core testing, dry and wet methods

· Above tests are not reliable for roof systems due to:

- Large temperature fluctuations (both during test and in-service)
- Solar radiation effects
- Precipitation
- Tests cannot quantify amount of water / moisture in deck
- The best way to interpret migration of this moisture is through hygrothermal modeling

VAPOR RETARDER (VR) DESIGN & INSTALLATION ISSUES



- Bond of VR to concrete (concrete too wet or solar drive)



The So Cal Chapter of RCI, Inc. invites you to learn, network and dine at our Technical Dinner Meeting at **JT Schmid's Restaurant & Brewery, 2415 Park Ave, Tustin, CA 92782**. This program is designed to improve the knowledge base of consultants, contractors, and design professionals practicing in the roofing, waterproofing and building enclosure field. The seminar provides 1.0 AIA LU's and 1.0 RCI CEH's and includes dinner.

The frequency of moisture related claims involving concrete roof decks has been increasing rapidly over the past few years. Problems have been reported under all types of roof systems in most climates. The issues are typically encountered on roofs that have not exhibited any leakage, and generally appear to have been properly installed, yet when cut open, they are found to be damp to wet across the entire roof surface. Legal experts specializing in the construction industry expect this to be the most frequent source of roofing related litigation in the coming years. There are numerous reasons for these issues, including changes in system build-ups, year round construction in all climates, and accelerated construction schedules. Exacerbating the problem is the increased usage of lightweight structural concrete. Much has been written on the topic and various trade groups have weighed in on the matter. Most of the published literature highlights potential causes and recommends caution installing roofs on concrete decks, but generally provide little to no specific advice on how to avoid problems. The paper will review the key issues involved, provide practical recommendations for preventing problems from occurring and potential remedial approaches in situations where problems have occurred.

The objectives of the presentation are:

1. Assess the past and present construction practices where the roof deck is structural concrete with the emphasis on the effects of excess water to the roof system.
2. Review the positions of various industry organizations as the issues with wet concrete decks and their recommendations.
3. Understand the composition of both normal and lightweight structural concrete, the concept of free water and the difference between curing and drying.
4. Evaluate the typical standard test methods available to determine the amount of moisture that may be present in the concrete, discussing the feasibility of each test more exposed concrete.
5. Review two case studies one new construction the other a reroof, evaluating the cause and solutions. Discuss techniques that may be used when installing a roof system over a concrete deck.



Ken Konczal [konczal.ken@us.sika.com] is a senior technical sales representative with Sika Sarnafil and has been with the company for 11 years. Prior to coming on board with Sika Sarnafil, he worked for Rustoleum / Zinser as the Okon product manager / sales for clear sealers and repellents. Mr. Konczal has achieved a CDT credential from CSI and is a LEED accredited professional.

When:

Tuesday, August 28th, 2018

Social/Tabletop Exhibits: 5:30 p.m. – 6:45 p.m.
Dinner: 6:45 p.m.
Presentation: 7:00 p.m. – 8:00 p.m.

Where:

JT Schmid's Restaurant & Brewery
2415 Park Ave, Tustin, CA 92782
(restaurant parking available)

Cost:

Registration: \$45 RCI Members
\$65 Non-members
Tabletop Sponsorship: \$175 (tabletop + 1 dinner)

Registration:

Online at: www.socalrci.org
72-hour cancellation is requested for a full refund.

Map:

