Schöck Releases the Expert’s Design Guide to Prevent Thermal Bridging

NEW YORK, NY and TORONTO, ONTARIO--JUNE 26, 2014 – Schӧck the leading International producer of structural thermal breaks announces the release of the Design Guide, a comprehensive resource for designers on the method for calculating the impact of structural thermal bridges in buildings constructed of concrete and steel, and the effective solutions of mitigating the thermal bridging effect.

Created specifically to provide designers with an enhanced understanding of the thermal bridging, the Design Guide begins with an introduction to thermal bridging, explaining how heat moves through building assemblies, what effects are made to the surface temperatures and condensation control of building assemblies, and what variable are important to measure.

Further to understanding, the Design Guide walks though the methods of calculating the impact of thermal bridges on 1) the heat flows, 2) temperatures and 3) moisture performance of building enclosures. Best practice examples present how the impact of thermal bridges can be mitigated during design, both in general and using Schӧck Isokorb® thermal breaks.

Procedures and examples to evaluate the energy benefit using whole building energy modeling and how best to integrate solutions for performance and code compliance are presented in the Design Guide.

“With the rapid increase of thermal performance requirements in building codes, we aim to educate the market and prepare designers from our expertise in building science. Our goal was to create a tool which designers can use to further understand how to calculate the impact of thermal bridges and ultimately how to avoid thermal bridging while meeting code compliance.” - Adam Kimble, Head of North America, Schöck USA Inc.

The Design Guide was created in collaboration with leading engineering firm, Morrison Hershfield Limited, and draws from the methods and results of thermal modeling carried out under and ASHRAE sponsored research project, ASHRAE 1365 RP Thermal Performance of Building Envelope Details for Mid and High Rise Buildings.

A copy of the Design Guide can be obtained from a Schӧck member or from the Thermal Bridging Solution Center, due to release online by mid-July 2014.

Schöck is proud of its reputation for customer service and innovative thermal break products installed in The Tower at PNC Plaza, Kimbell Art Museum, Fulton Street Transit Center, 2012 Olympics Village and Aquatic Centre, and Umass Life Science Laboratory.

For more information on Schӧck’s products and services, visit www.schock-us.com or contact us at 855-572-4625.

approx. 2,650 characters (with spaces)

Photographs

[Continuous balcony slab versus a solution with Schock Isokorb®.jpg]

Continuous balcony slab without thermal break (left) and balcony slab thermally broken with Schöck Isokorb® (right) providing a continuous insulation layer. The thermographic illustration shows a reinforced concrete balcony with and without a thermal break provided by a 3D thermal analyses. The image on the left shows an undisturbed thermal bridge. The color gradient shows how the heat flows to the outside through the balcony slab, from the warm red to the cold blue area. The image on the right depicts a thermally broken balcony connection. As the illustration shows, a load-bearing thermal insulation element significantly reduces heat loss and provides continuity in the insulation layer.

Photo courtesy of: Schöck USA Inc.

[curb insulation, without and with Schöck Isokorb.jpg]

Thermal model for the balcony intersection with exterior and interior insulated steel stud assembly, without and with Schöck Isokorb thermal break.

Photo courtesy of: Schöck USA Inc.