Opportunities from Change: The Building Science Connection

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The building industry has not historically been known for rapid advancements or adoption of changes in technology. In fact we seem to embrace phrases like, "I've been doing it that way for 20 years," or "You know, they don't build them the way they used to." However there are compelling reasons to think that the pace of change, at least in the residential construction sector, will increase dramatically in the next few years. Combined with the rebounding building economy and the quickly emerging shortage in skilled tradespeople, the now well-defined building code changes (with respect to energy efficiency and environmental sustainability) make faster change inevitable.

Forward-thinking building supply dealers are uniquely positioned to help builders and remodelers manage the fast-changing industry. As a result, LBM dealers providing this guidance will likely earn a higher percentage of their clients' material supply sales, they'll also be positioned to sell more of the new products and technologies needed to meet the energy requirements of changing codes and green building programs.

The early months of 2013 are an excellent opportunity for dealers to evaluate their existing product mix against the new industry requirements. One evaluation criteria needs to be the technical attributes of products based on sound building science principles, appropriate to the climate zones in your market area. LBM dealers will find it useful to foster relationships with building science professionals to optimize the opportunities and manage potential risks.

One great example of this pace of change business opportunity vs. risk conversation, is the focus on building enclosure air leakage control measures. The 2009 International Energy Conservation Code, adopted by at least 28 states at the time of writing this article, has very specific prescriptive requirements for air barrier inspections and a benchmark air tightness target. The 2012 IECC ups the ante by requiring all new homes to be air tightness tested.

While the 2012 code is now being evaluated by most state building authorities, it is highly likely that a majority of states will adopt this air leakage control measure, as it is truly the most cost effective way to reduce energy consumption in all homes, and in all climate zones. Moreover, when done in an appropriate and comprehensive way, it dramatically improves the comfort, health and durability of houses.

Controlling air leakage through building enclosures can be done from the inside of a house by using technologies such as comprehensive air sealing or gasketing of drywall or spray foam insulation. The building science community has been advocating outside air barrier approaches as being technically easier and more reliable. A properly detailed housewrap, for example, can be converted from simply a weather barrier to a comprehensive air and weather barrier by the application of proper tapes and flashing materials, thus simultaneously increasing the durability of a building while reducing winter energy consumption by 15-20%. Indeed dramatic improvements in air tightness can be done for less than $1,000.

Dealers assess the suitability of their current inventory choices and product mix to be ready now and positioned for code changes over the next 3-5 years. Choices such as comprehensive weather barrier systems vs. traditional building papers, insulated sheathing choices with respect to structural requirements; even things as simple as the proper mix of sealants for best compatibility with interior vs. exterior air barrier decisions.

Bottom line: the way we build homes is changing. Forward-thinking LBM dealers have the opportunity to deliver greater value to their customers, while enjoying higher margin sales. In future columns, we will discuss the science behind the changes and the systems approach needed to be successful with them. ■

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