

Merck acquires dynamic glazing company Peer+

Date: July 2014,18

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On June 30, German chemical company Merck **announced** that it has acquired dynamic glass developer Peer+. Even prior to the announcement, Merck had a 70% stake in Peer+ through a private placement round in 2012. In addition, Merck is also a supplier of liquid crystal material and a technology development partner.



Peer+ dynamic glass uses a combination of liquid crystals and a dichroic dye as the active ingredient that changes light transmission upon application of voltage. The company was producing 1.2 m x 1.5 m prototypes when we last spoke with the Chief Marketing Officer Teun Wagennar (see the [August 4 2013, LRBMJ](#)) at an annual capacity of 2,000 m² per year. Although the dark and light state transmission is comparable to – and the switching speed, at 1 second – is considerably faster than electrochromic (EC) glass, like all dynamic glass technologies, Peer+ products suffer from high price points. Per our last conversation, the company estimates **installed price point of \$250/m² to \$600/m², even at commercial productions scale**. We estimate that even at the low end of this spectrum, simple payback based on energy savings and downsizing of HVAC units will be seven years, and at the high end of the spectrum greater than 15 years. **A payback period this high means adoption will be driven by comfort factors**, and hence will remain limited to a niche. Our market size projections of \$418 million for the dynamic glass sector is reflective of this fact (see "[Opening the Thermal Envelope: Emerging Innovations in Advanced Insulation and Dynamic Windows](#)").



Despite the high payback and relatively small market size, it may make sense for Merck to chase new applications for its liquid crystal materials via investments like this, or for Saint-Gobain to use its expertise in sputter deposition on glass, to try to bring value to its recent acquisition Sage. However, **clients who don't have an obvious value chain integration play should stay away from dynamic glass, and instead look into investing in technologies with short payback, such as after-market solar control films**.

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Source: Lux Research