## Exterior Cladding Reality Check:



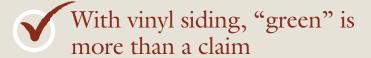
With the amount of information readily available today, responsible manufacturers know better than to make unsubstantiated claims about product performance. From lifecycle analysis tools to ICC standards, there is plenty of well-respected, independent data available on the proven environmental performance of building materials.

Why select exterior cladding based solely on marketing claims – many of which have no basis in reality?

The Vinyl Siding Institute, Inc. (VSI) believes you deserve better. It is your right to know the facts, and our responsibility to share them.



## Vinyl Siding vs. James Hardie Fiber Cement Siding



Just saying your products are green doesn't make them so. James Hardie® claims their products are "environmentally friendly" and vinyl siding is not.\* That is simply not true.

Vinyl siding has been analyzed using Building for Environmental and Economic Sustainability (BEES®) software, a leading life-cycle analysis tool developed by the National Institute of Standards and Technology (NIST). Vinyl siding scores well on tough environmental measures through all life-cycle stages including raw material acquisition, manufacture, transportation, installation, use and waste management.¹ And, as shown below, compared to other exterior cladding, vinyl siding excels in environmental performance.

How does James Hardie fiber cement score? No one knows. Comparisons cannot be conducted in BEES® since James Hardie, the largest manufacturer in the category, has not submitted their data to NIST. (A number of factors, including an energy-intensive manufacturing process and high fuel transportation costs due to the product's heavy weight can be assumed.)



What's more, as reported in the Shelton Group's *Green Living Pulse* study, the main motivation for reducing energy consumption is to "reduce bills/control costs." Research conducted as part of the New York State Energy Research Development Authority's (NYSERDA) High Performance Residential Development Challenge shows that use of insulated vinyl siding results in greater utility cost savings than James Hardie's fiber cement.<sup>2</sup>

For a more detailed life-cycle assessment on vinyl siding, see our Green Paper at www.vinylsiding.org/greenpaper.

\*The Federal Trade Commission advertising rules discourage broad, unqualified claims and state that it is deceptive to misrepresent a general environmental benefit unless it can be substantiated. VSI prefers to follow the FTC rules and give specific examples, such as life-cycle assessment, to support our claims. We are not aware of any similar basis for the environmentally-friendly claims that James Hardie makes.



## Vinyl siding is proven to be safe

A building material's impact on the environment certainly includes the job site. Is it safe for workers to handle and install? The significant health risks associated with the installation of silica-based fiber cement are well documented, even on the James Hardie website and in their Material Safety Data Sheet<sup>3</sup> including:

- "Important Note: Prior to using any James Hardie® products, all users must read all applicable warnings (including MSDS) and comply with all installation instructions. Failure to do so may result in serious personal injury or death."4
- "Chronic Effects: Repeated and prolonged overexposures to dust containing crystalline silica can cause silicosis (scarring of the lung) and increases the risk of bronchitis, tuberculosis, lung cancer, renal disease, and scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels, and internal organs)."3
- "Personal Protection: When handling products that may generate silica dust: (1) follow our best practices to limit the release of dust; (2) work outdoors whenever possible, (3) wear a NIOSH-approved dust mask or respirator (e.g., the N 95 dust mask) to further limit exposure to respirable silica dust; and (4) warn others in the area."3

Use of vinyl siding does not pose health risks to the installer – or to anyone.



Chronic silicosis is a disease resulting from exposure over long periods of time (10-30 years). Exposure to high levels of respirable crystalline silica causes acute or accelerated forms of silicosis that can be ultimately fatal. Silicosis can lead to heart failure and has been linked to several forms of lung cancer as well as increase the risk of other diseases such as tuberculosis



The National Association of Home Builders has published a series of safety cards detailing the health hazards of silica in home building.



## Vinyl siding is offered in hundreds of colors certified to last

James Hardie would like people to believe that today's vinyl siding has limited color choices and colors won't hold up over the years. Again, simply not true.

Vinyl siding is available in a broad and ever-increasing spectrum of colors. Hundreds of these products have been certified through the VSI Product Certification Program to meet or exceed the requirements of ASTM D3679 for quality, plus D6864 or D7251 – the industry standards for color retention.

With virtually no maintenance, today's vinyl siding will keep its beautiful color. On the other hand, homeowners with James Hardie fiber cement have to periodically paint to maintain color, even for their pre-finished products.





For more comparisons between today's vinyl siding and fiber cement, be sure to download Side-by-Side The Truth About Vinyl Siding and Fiber Cement Siding from the VSI website at www.vinylsiding.org.



For more fact-based information on the beauty, durability, sustainability and value of today's vinyl siding, be sure to visit www.vinylsiding.org.

<sup>1</sup>BEES® 4.0, Building for Environmental and Economic Sustainability, National Institute of Standards and Technology <sup>2</sup>Building Green with Insulated Vinyl Siding, Newport Ventures, July 2, 2009 <sup>3</sup>James Hardie Material Safety Data Sheet. www.jameshardie.com/homeowner/  $pdf/msds.pdf.\ 9/15/08.\ Issue\ 22\quad ^{4} James\ Hardie\ Building\ Products.\ www.jameshardie.com/builder/designBuildCenter\_workingSafe.shtml$ 

