

Formawall® Dimension Series® (FWDS)

Versawall®

Versapanel®

LEED 2009 for New Construction & Major Renovations

The following information is provided to assist the LEED project team in determining CENTRIA product contributions toward specific LEED credits. For information not included in this data sheet, please contact CENTRIA, or visit:

www.CENTRIA.com
<http://greenworld.centria.com>

Energy & Atmosphere

EA Credit 1 Optimize Energy Performance 1 to 19 Points

CENTRIA foam panels have been independently tested for thermal transmittance and can contribute significantly to EA Credit 1 by providing a verifiable insulation value that meets or exceeds the baseline values prescribed in ANSI/ASHRAE/IESNA Standard 90.1-2007. Test reports are available upon request.

| CENTRIA Product | Panel Thickness | U-Value (with air film on each side of panel) | R-Value (with air film on each side of panel) |
|-----------------|-------------------|--|--|
| FWDS | 2" with ½" reveal | 0.072 | 13.89 |
| FWDS | 3" with ½" reveal | 0.049 | 20.58 |
| FWDS | 2" with 6" reveal | 0.084 | 11.87 |
| FWDS | 3" with 6" reveal | 0.068 | 14.74 |
| FWDS | DS-60 | 0.104 | 9.62 |

| CENTRIA Product | Panel Thickness | U-Value (with air film on each side of panel) | R-Value (with air film on each side of panel) |
|-----------------|-----------------|---|---|
| Versapanel | 1 ¾" | 0.069 | 14.44 |
| Versapanel | 2 ½" | 0.052 | 19.34 |
| Versapanel | 4" | 0.036 | 27.41 |
| Versawall | 2" | 0.069 | 14.41 |
| Versawall | 2 ¾" | 0.049 | 20.24 |
| Versawall | 4" | 0.037 | 27.34 |

Materials & Resources

MR Credit 4

Recycled Content: 10%

1 Point

Recycled Content: 20%

2 Points

| CENTRIA Panel | Panel Thickness | Panel Module | Face Panel Gage | Liner Panel Gage | Percent of Recycled Content By Weight | | |
|------------------|--------------------|-----------------|-----------------------|------------------------|--|-------------------|--------|
| | | | | | Post- Consumer* | Pre- Consumer* | Total |
| FWDS | 2" | 24" | 22 | 26 | 21.2 % | 5.7 % | 26.9 % |
| FWDS | 2" | 36" | 22 | 26 | 21.0 % | 5.6 % | 26.6 % |
| FWDS | 3" | 24" | 22 | 26 | 19.7 % | 5.3 % | 25.0 % |
| FWDS | 3" | 36" | 22 | 26 | 19.4 % | 5.2 % | 24.6 % |
| FWDS | DS-59 | 12" | 22 | 26 | 22.4 % | 6.0 % | 28.4 % |
| FWDS | DS-60 | 12" | 22 | 26 | 22.9 % | 6.1 % | 29.0 % |
| Versapanel | 1 ¾" | 36" | 26 | 26 | 20.6 % | 5.5 % | 26.1 % |
| Versapanel | 2 ½" | 36" | 26 | 26 | 19.1 % | 5.1 % | 24.2 % |
| Versapanel | 4" | 36" | 26 | 26 | 16.7 % | 4.5 % | 21.2 % |

| CENTRIA Panel | Panel Thickness | Panel Module | Face Panel Gage | Liner Panel Gage | Post-Consumer* | Pre-Consumer* | Total |
|---------------|-----------------|--------------|-----------------|------------------|----------------|---------------|--------|
| Versawall | 2" | 30" | 26 | 26 | 19.9 % | 5.3 % | 25.2 % |
| Versawall | 2" | 36" | 26 | 26 | 19.7 % | 5.3 % | 25.0 % |
| Versawall | 2 ¾" | 30" | 26 | 26 | 18.3 % | 4.9 % | 23.2 % |
| Versawall | 2 ¾" | 36" | 26 | 26 | 18.1 % | 4.8 % | 22.9 % |
| Versawall | 4" | 30" | 26 | 26 | 16.1 % | 4.3 % | 20.4 % |
| Versawall | 4" | 36" | 26 | 26 | 15.9 % | 4.2 % | 20.1 % |

*These values are based on calculations in accordance with the procedure detailed in the LEED 2009 Reference Guide for Green Building Design and Construction.

MR Credit 5 **Regional Materials: 10%** 1 Point
 Regional Materials: 20% 2 Points

CENTRIA foam panels are engineered insulated composite panels comprised of a variety of components such as galvanized steel or other metals, coatings, foam insulation, and sealants. Although the finished panels are manufactured at CENTRIA’s facility in Sheridan, Arkansas, the panel components are made from a variety of raw materials and fabricated in a variety of locations. Given the complexity of such a multi-component system, it is not possible to verify and document a primary location of material extraction or processing. Therefore, CENTRIA suggests that these panels not be included in the calculations for MR Credit 5.

Indoor Environmental Quality

IEQ Credit 4.1 **Low-Emitting Materials: Adhesives and Sealants** 1 Point

This credit requires that the VOC content of all adhesives and sealants used on the interior of the building (i.e., inside of the weatherproofing system and applied on-site) must be less than the limits established by the South Coast Air Quality Management District, Rule #1168. The field-applied sealant (Tremco JS-773) used with CENTRIA foam panels has a VOC content of *180 grams/liter*, which is less than the maximum limit of 250 grams/liter established by this regulation for architectural sealants. Therefore, the Tremco JS-773 sealant meets the requirements of IEQ Credit 4.1.

IEQ Credit 4.2 **Low-Emitting Materials: Paints and Coatings** 1 Point

Any coating applied to any surface of these panels is coil-applied prior to forming of the panel, and as a result, no VOCs are generated at the jobsite from field-painting operations.

Innovation & Design Process

ID Credit 1 **Innovation in Design: Cradle to Cradle Certification** 1 Point

In early 2007, the U.S. Green Building Council established an ID Credit point for the use of products certified under the Cradle to Cradle Certification Program. This program, administered by MBDC (McDonough Braungart Design Chemistry), evaluates products and their manufacturing process on the basis of human/environmental impact, material reutilization, energy and water use, and social responsibility. A product that meets the certification criteria is designated as either a Silver, Gold, or Platinum level product and labeled as “Cradle to Cradle Certified”. CENTRIA Formawall Dimension Series, Versawall and Versapanel are all Cradle to Cradle Silver Certified.

For additional information regarding the use of Cradle to Cradle Certified products in the LEED certification process, consult the U.S. Green Building Council (www.usgbc.org) and MBDC (www.mbdc.com).

Potential for Other Credits

The use of CENTRIA foam panels may contribute to other LEED Credits through the use of integrated Formavue window systems (IEQ Credits 8.1 and 8.2, Daylight and Views), integrated louvers (IEQ Credit 2, Increased Ventilation), and integrated sunshades (EA Credit 1, Optimize Energy Performance).