# Sustainability Tables

| Related USGBC LEED Credits | MR 4 | | EQ 4 | | | MR 5 |
|---|---|---|---|---|---|---|
| **Product Family:** | **Post-Consumer** | **Pre-Consumer** | **Content or CHPS** | **Formaldehyde & VOC Emission** | **Approx. Density lbs./cu.ft.** | **Raw Materials** (percentage by weight) Values based on average during:2009 January through December |
| **Steel framing** | 0 | 25% | | | | Steel: (material location varies both US and international) |
| **Paper tape** | 0 | 0 | | | | Paper: manufactured at Gypsum, OH; (paper from Georgetown, SC) |
| **Glass fiber tape** | 0 | 0 | | | | Fibrous glass |
| **Paper-faced bead** | 0 | 25% | | | | Steel, Paper, Adhesive: manufactured in Auburn, WA & Weirton, WV. |
| **Metal bead** | 0 | 25% | | | | Steel: (material location varies) |
| **SHEETROCK® BRAND FIRST COAT** | 0 | 0 | **< 50 g/L** | | | 40% Water, 20% Polymer, 20% Clay, 10% Limestone: manufactured at Gypsum, OH |
| **SHEETROCK® COVER COAT™ compound** | 0 | 0 | **< 2 g/L.** | | 105 | 50% Limestone, 30% Water, 5% Mica, 5% Latex, & 5% Attapulgite: Manufactured at East Chicago, In; Port Reading, NJ; & Jacksonville, FL. |
| **SHEETROCK® Joint compound – Ready mix (drying type)** | 0 | 0 | **< 2 g/L.** | | 67-105 | 50% Limestone, 30% Water, 5% Mica, 5% Polymer Emulsion, & 5% Clay:<br>**North East Plants**: Baltimore, MD; Gypsum, OH; & Port Reading, NJ.<br>**South Central Plants**: Bridgeport, AL; Chamblee, GA; East Chicago, IN; Fort Dodge, IA; & Jacksonville, FL.<br>**Western Plants**: Auburn, WA; Dallas, TX; Galena Park, TX; Phoenix, AZ; Sigurd, UT; & Torrance, CA.<br>**Canadian Plants**: Hagersville, Ontario; Montreal, Quebec; Calgary, AB.; Surrey, BC. |
| **SHEETROCK® Joint Compound – Setting Type** | 0 | 0 | NA | | 40-80 | 60% Plaster of Paris, 20% Limestone & 10% Mica-only in the U.S.: **(Mixed on Job Site)**<br>**North East Plants**: Gypsum, OH (plaster from Fort Dodge, IA); & Port Reading NJ (plaster from Fort Dodge, IA).<br>**South Central Plants**: Chamblee, GA (plaster from Southard, OK); East Chicago, IN (plaster from Fort Dodge, IA); Fort Dodge, IA (plaster onsite); & Southard, OK (plaster onsite).<br>**Western Plants**: Auburn, WA (plaster from Mexico); Dallas, TX (plaster from Southard, OK); Phoenix, AZ (plaster from Southard, OK); & Torrance CA (plaster from Southard, OK).<br>**Canadian Plants**: Hagersville (plaster from ); Montreal (plaster from ); Surrey (plaster from). |
| **SHEETROCK® TUFF-HIDE™ primer-surfacer** | 0 | 0 | **< 50g/L** | | 100 | 90% Polymer Emulsion, <5% Silica, <5% Talc: manufactured at Gypsum, OH; Dallas, TX; Jacksonville, FL; or Phoenix, AZ. |
| **MICORE™ 160 & 300 panels (12% rapid renewable content.)** | 19% | 37% | **Pass** | **Low** | 3 | 28% Perlite,12% Starch, Clay; 4%, 37% Mineral Wool from Red Wing, MN; 19% recycled paper: manufactured at Cloquet; MN |
| **USG DONN® Brand AX™ Aluminum Suspension System** | 68 | 22 | | | | Recycled Aluminum: manufactured at Oakville, Ontario, Canada. |
| **USG DONN® Brand Hot-Dipped Galvanized Steel, and Stainless Steel Suspension Systems** | 25 to 50% | 6 to 8% | | | | US and foreign steel: manufactured at Cartersville, GA; Oakville, Ontario, Canada; Stockton, CA and Westlake, OH (Steel can specify US material, paint locally supplied). **See USG Design Studio LEED Report Tool for specific information:** (**http://www.usgdesignstudio.com/LEEDreport.asp**) |
| **SHEETROCK® Acoustical sealant** | 0 | 0 | 15 g/L | | | Limestone, Water, Polymer Emulsion: manufactured at Toronto, Ontario, Canada |
| **SHEETROCK® FIRECODE® Brand Compound** | 0 | 0 | NA | | | 60% Plaster of Paris, 20% Limestone & 10% Mica: **(Mixed on Job Site)**<br>Manufactured at Gypsum, OH (plaster from Fort Dodge, IA) |

# Sustainability Tables

| Related USGBC LEED Credits | MR 4 | | EQ 4 | | | MR 5 |
|---|---|---|---|---|---|---|
| **Product Family:** | **Post-Consumer** | **Pre-Consumer** | **Content or CHPS** | **Formaldehyde & VOC Emission** | **Approx. Density lbs./cu.ft.** | **Raw Materials** (percentage by weight) Values based on average during:2009 January through December |
| **FIRECODE® Brand Acrylic Firestop Sealant** | 0 | 0 | 35 g/L | | | 45% Polymer Emulsion, 40% Water: Manufactured in Toronto, Ontario, Canada |
| **FIRECODE® Brand Acrylic Firestop Spray Sealant** | 0 | 0 | 50 g/L | | | 50% Polymer Emulsion, 40% Water: Manufactured in Toronto, Ontario, Canada |
| **FIRECODE® Intumiscent Acrylic Firestop Sealant** | 0 | 0 | 50 g/L | | | 35% Polymer Emulsion, 35% Water, 20% Limestone: Manufactured in Toronto, Ontario, Canada |
| **DUROCK™ cement board**<br>**DUROCK™ Next Gen panels** | 0<br>0 | 10%<br>15% | | | 72 | 40% Aggregate, 45% Portland cement, 10% Fly Ash, & 5% Other; **DUROCK™ Next Gen:** 50% Portland cement, 22% Aggregate, 8% Perlite, 15% Fly Ash, & 5% Other: manufactured at Baltimore, MD; Detroit, MI; New Orleans, LA; Santa Fe Springs, CA |
| **FIBEROCK® sheathing, AR panels & underlayment** | 0 | 95% | Pass | Low | 53 | 85% FGD Gypsum from Westmoreland, PA; 10% Cardboard Waste(Local)& 2% Wax (Local): manufactured at Gypsum, OH |
| **SECUROCK® roof panels** | 0 | 95% | Pass | Low | 53 | 85% FGD Gypsum from Westmoreland, PA; 10% Cardboard Waste(Local) & 2% Wax (Local): manufactured at Gypsum, OH |
| **SECUROCK® exterior sheathing** (94% gypsum, 4% glass fiber & 1% starch) | 0 | 0 | Pass | Low | 48 | Manufactured at Empire, NV; Gypsum onsite |
| | 0 | 0 | Pass | Low | 48 | Manufactured at Sperry, IA; Gypsum onsite |
| | 0 | 0 | Pass | Low | 48 | Manufactured at Sweetwater, TX; Gypsum on site |
| **SHEETROCK® Wall & Ceiling Texture Tuf Tex** | 0 | 0 | Pass | Low - **0 g/L** | | 70% Limestone; 10% Mica; 10% Clay; 5% Starch – Manufactured at Dallis, TX |

# Sustainability Tables

| USGBC LEED Credits | MR 4 | | | EQ 4 | MR 5 |
|---|---|---|---|---|---|
| CONVENTIONAL PLASTER PRODUCTS: (Mixed on Job Site) | Post-Consumer | Pre-Consumer | Approx. Density lbs./cu.ft. | VOC | Plant Location; Raw Materials (%s by weight) Values based on average during:2009 January through December |
| RED TOP GYPSUM PLASTER | 0 | 0 | 80 | NA | 100% Plaster of Paris from Gypsum onsite; Manufactured at Empire, NV |
| | 0 | 0 | | NA | 100% Plaster of Paris from Gypsum onsite; Manufactured at Shoals, IN |
| | 0 | 99 | | NA | 100% Plaster of Paris from FGD Gypsum at Westmoreland, PA; Manufactured at Gypsum, OH |
| RED TOP GAUGING PLASTER | 0 | 0 | 80 | NA | 100% Plaster of Paris from Gypsum onsite; Manufactured at Empire, NV |
| | 0 | 0 | | NA | 100% Plaster of Paris from Gypsum onsite; Manufactured at Southard, OK |
| | 0 | 0 | | NA | 100% Plaster of Paris from Gypsum onsite; Manufactured at Shoals, IN |
| RED TOP GAUGING PLASTER - AGGREGATED | 0 | 0 | 70 | NA | 98% Plaster of Paris from Gypsum at Nova Scotia, Canada & 2% Perlite; Manufactured at Baltimore, MD |
| RED TOP WOOD-FIBER PLASTER | 0 | 99 | 80 | NA | 99% Plaster of Paris from FGD Gypsum at Westmoreland, PA & 1%Wood; Manufactured at Gypsum, OH |
| | 0 | 0 | | NA | 99% Plaster of Paris from Gypsum onsite &1% Wood; Manufactured at Shoals, IN |
| RED TOP FINISH PLASTER | 0 | 0 | 55 | NA | 50% Plaster of Paris from Gypsum onsite &50% Lime; Manufactured at Empire, NV |
| | 0 | 0 | | NA | 50% Plaster of Paris from Gypsum onsite & 50% Lime; Manufactured at Shoals, IN |
| STRUCTO-BASE BASECOAT PLASTER | 0 | 0 | 80 | NA | 100% Plaster of Paris from Gypsum onsite; Manufactured at Empire, NV |
| | 0 | 0 | | NA | 100% Plaster of Paris from Gypsum onsite; Manufactured at Southard, OK |
| | 0 | 0 | | NA | 100% Plaster of Paris from Gypsum onsite; Manufactured at Fort Dodge, IA |
| STRUCTO-LITE BASECOAT PLASTER | 0 | 0 | 55 | NA | 90% Plaster of Paris from Gypsum onsite & 10%,Perlite; Manufactured at Empire, NV |
| | 0 | 0 | | NA | 90% Plaster of Paris from Gypsum onsite &10% Perlite; Manufactured at Shoals, IN |
| | 0 | 75 | | NA | 90% Plaster of Paris from Gypsum at Westmoreland, PA &10% Perlite; Manufactured at Gypsum, OH |
| STRUCTO-GAUGE GAUGING PLASTER | 0 | 0 | 80 | NA | 100% Plaster of Paris from Gypsum onsite; Manufactured at Fort Dodge, IA |
| | 0 | 0 | | NA | 100% Plaster of Paris from Gypsum onsite; Manufactured at Southard, OK |
| KEENES CEMENT | 0 | 0 | | NA | 100% Calcium Sulfate from Gypsum onsite: Manufactured at Southard, OK |

# Sustainability Tables

| USGBC LEED Credits | MR 4.1 & 4.2 | | | EQ 4 | MR 5.2 |
|---|---|---|---|---|---|
| **VENEER PLASTER PRODUCTS: (Mixed on Job Site)** | **Post-Consumer** | **Pre-Consumer** | **Approx. Density lbs./cu.ft.** | **VOC** | **Plant Location; Raw Materials (%s by weight)** Values based on average during:2009 January through December |
| **DIAMOND VENEER BASECOAT PLASTER** | 0 | 0 | 120 | NA | 50% Plaster of Paris from Gypsum on-site & 50% Sand; Manufactured at Empire, NV |
| | 0 | 0 | | NA | 50% Plaster of Paris from Gypsum on-site &50% Sand; Manufactured at Shoals, IN |
| **DIAMOND VENEER FINISH PLASTER** | 0 | 0 | 70 | NA | 80% Plaster of Paris from Gypsum onsite & 20% Lime; Manufactured at Empire, NV |
| | 0 | 0 | | NA | 80% Plaster of Paris from Gypsum onsite & 20% Lime; Manufactured at Shoals, IN |
| **Imperial Veneer Basecoat Plaster** | 0 | 0 | 120 | NA | 50% Plaster of Paris from Gypsum onsite & 50% Sand; Manufactured at Empire, NV |
| | 0 | 0 | | NA | 50% Plaster of Paris from Gypsum onsite &50% Sand; Manufactured at Shoals, IN |
| **IMPERIAL VENEER FINISH PLASTER** | 0 | 0 | 120 | NA | 75% Plaster of Paris from Gypsum onsite & 25% Sand; Manufactured at Empire, NV |
| | 0 | 0 | | NA | 75% Plaster of Paris from Gypsum onsite & 25% Sand; Manufactured at Shoals, IN |
| **Plaster Bonder** | 0 | 0 | | 45g/L | Water (50%) & Polymer Emulsion; manufactured in Gypsum, OH. |
| **Ivory Finish Lime** | 0 | 0 | | NA | 100% Lime manufactured in Genoa, OH, from Limestone on-site. |

| USGBC LEED Credits | MR 4.1 & 4.2 | | | EQ 4 | MR 5.2 |
|---|---|---|---|---|---|
| **LEVELROCK® Floor Underlayment Products: (Mixed on Job Site)** | **Post-Consumer** | **Pre-Consumer** | **Approx. Density lbs./cu.ft.** | **VOC** | **Plant Location; Raw Materials (%s by weight)** Values based on average during:2009 January through December |
| **LEVELROCK® 2500 Green, 3500 Green, RH Green** (Radiant Heat), **Commercial RH Green** (Radiant Heat), and **LEVELROCK® CSD® Green** floor underlayment | 0 | 90 | 115 - 120 | NA | Gypsum, OH; 90% FGD Gypsum from Westmoreland, PA; 10% Portland Cement obtained locally. |
| **LEVELROCK® 2500, 3500, 4500, RH** (Radiant Heat),**Commercial RH** (Radiant Heat), **CSD®** (corrugated steel deck), & **CSD® RH** floor underlayment | 0 | 0 | 115 -120 | NA | Southard, OK; Plaster of Paris onsite |
| | 0 | 0 | | NA | Fort Dodge, IA; Plaster of Paris onsite |
| | 0 | 15 | | NA | Baltimore, MA; Plaster of Paris from Nova Scotia, Canada |
| **LEVELROCK® CSD™** floor underlayment (corrugated steel deck) | 0 | 15 | 120 | NA | Baltimore, MA; Plaster of Paris from Nova Scotia, Canada |
| | 0 | 0 | | NA | Southard, OK; Plaster of Paris onsite |
| **LEVELROCK® PROFLOW™, QUIK-TOP™, 2500** Pre-Sanded, **3500** Pre-Sanded, **4500** Pre-Sanded, **RH** Pre-Sanded, **Commercial RH** Pre-Sanded floor underlayment | 0 | 0 | 115-130 | NA | Southard, OK; 20% Plaster of Paris onsite, 20% Portland Cement obtained Locally, & 55% Sand obtained locally. |
| **LEVELROCK® CSD® EE** (Early Exposure) floor underlayment | 0 | 0 | 115 - 120 | NA | Southard, OK; 90% Gypsum on site; 10% Portland Cement. |

**Note:** USG uses more recaptured (FGD or flue gas desulfurization) gypsum than any other competitive supplier, over 3 million tons in 2003. However, this content changes from plant to plant and even day to day due to availability. The recycled contents provided in these tables are approximate based on plant averages. Most of the power plants, which produce this industrial process material (FGD Gypsum), are east of the Mississippi River. While this industrial process material gypsum is not available everywhere in North America, we do have plants strategically located to meet your needs. Evaluation should be made per job on the benefits of the use of this material over natural gypsum in the production of LEVELROCK® underlayment used in your project. Using locally produced products like LEVELROCK® underlayment may be more environmentally friendly than shipping LEVELROCK® green floor underlayment across the country to take advantage of the high recycled content.

# Sustainability Tables

| USGBC LEED Credits | MR 4.1 & 4.2 | | | EQ 4 | MR 5.2 |
|---|---|---|---|---|---|
| LEVELROCK® Floor Underlayment Products: | Post-Consumer | Pre-Consumer | Approx. Density lbs./cu.ft. | VOC | Plant Location; Raw Materials (%s by weight) Values based on average during:2009 January through December |
| **LEVELROCK® SAM N25, N40 & N75** Sound Mats | 0 | 40 | | | |
| **LEVELROCK® SRM-25** Sound Mats | 0 | 50 | | | |
| **LEVELROCK® SRB** Sound Board | 17 | 32.7 | | | |

| USGBC LEED Credits | MR 4.1 & 4.2 | | | EQ 4 | MR 5.2 |
|---|---|---|---|---|---|
| ARCHITECTURAL GYPSUM PLASTER AND CEMENT PRODUCTS: (Mixed on Job Site) | Post-Consumer | Pre-Consumer | Approx. Density lbs./cu.ft. | VOC | Plant Location; Raw Materials (%s by weight) Values based on average during:2009 January through December |
| **HYDROCAL® WHITE, FGR 95 AND FGR 115** gypsum cement | 0 | 0 | 103-112 | NA | Plaster of Paris from Gypsum onsite; Manufactured at Southard, OK |
| **ENDURACAST™ Gypsum Matrix** gypsum cement | 0 | 0 | 130 | NA | 80% Plaster of Paris from Gypsum onsite; Manufactured at Southard, OK |
| **ULTRACAL®, 30 AND 60,** gypsum cement | 0 | 0 | 120 | NA | 85% Plaster of Paris from Gypsum onsite &10% Portland Cement obtained locally; Manufactured at Southard, OK |
| **ARCHITECTURAL HYDROCAL®,** gypsum cement | 0 | 0 | 95-104 | NA | Plaster of Paris from Gypsum onsite; Manufactured at Fort Dodge, IA |

| USGBC LEED Credits | MR 4.1 & 4.2 | | | EQ 4 | MR 5.2 |
|---|---|---|---|---|---|
| FORTACRETE STRUCTURAL PANELS: | Post-Consumer | Pre-Consumer | Approx. Density lbs./cu.ft. | VOC | Plant Location; Raw Materials (%s by weight) Values based on average during:2009 January through December |
| **FORTACRETE FLOOR DECKING** | 0 | 36 | 78 | | 36% Fly Ash, 20% Gypsum from Fort Dodge, IA, 20% Portland Cement, 10% Sand, & 10% Fibrous Glass; manufactured in Delavan, WI |

| USGBC LEED Credits | MR 4.1 & 4.2 | | | EQ 4 | MR 5.2 |
|---|---|---|---|---|---|
| USG INDUSTRIAL/ENVIRONMENTAL PRODUCTS: | Post-Consumer | Pre-Consumer | Approx. Density lbs./cu.ft. | VOC | Plant Location; Raw Materials (%s by weight) Values based on average during:2009 January through December |
| **ENVIRO-SHIELD BFM** | 21% | 0% | | | 30% Gypsum (Southard, OK), ,49% Wood Fiber, 21% Recycled Paper; manufactured at Tyler, TX |
| **ENVIRO-SHIELD PLUS** | 0% | 0% | | | 30% Gypsum (Southard, OK), ,70% Wood Fiber; manufactured at Tyler, TX |

For more information on the benefits of the above products visit **www.usg-erosioncontrol.com/environmental/index.asp** or review the case studies at **www.lanandwater.com**.

# Sustainability Tables

**1/2" SHEETROCK® Gypsum Panels:** Values based on average during:2009 January through December

| USG Manufacturing Locations: | Post-Cons | Pre-Cons | Recycle Content | Weighted Rec. Con. | Rapid Renew | EQ 4 CHPS | Product Raw materials and Sources: Based on above values rounded down to the first decimal place. |
|---|---|---|---|---|---|---|---|
| Aliquippa, PA | 5.3% | 92.1% | 97.4% | 51.4% | 0.4% | Pass/Low | Gypsum: (FGD:) 92.1% from Pleasants, WV<br>Paper: 5.3% (Face) from Otsego, MI and (Back) from Oakfield, NY |
| Baltimore, MD | 5.7% | 21.6% | 27.3% | 16.5% | 0.5% | Pass/Low | Gypsum: (FGD:) 21.7% from York, PA (Natural) 68.7% from Nova Scotia, Canada<br>Paper: 5.7% (Face) from Galena Park, TX and (Back) from Galena Park, TX |
| Bridgeport, AL | 5.5% | 93.1% | 98.6% | 52.1% | 0.4% | Pass/Low | Gypsum: (FGD:) 93.2% from Bartow, GA<br>Paper: 5.5% (Face) from Clark, NJ and (Back) from Clark, NJ |
| East Chicago, IN | 5.3% | 90.9% | 96.2% | 50.8% | 0.1% | Pass/Low | Gypsum: (FGD:) 90.9% from Porter, IN<br>Paper: 5.3% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Empire, NV | 5.0% | 0.0% | 5.0% | 5.0% | 0.6% | Pass/Low | Gypsum: (Natural) 95.4% from Empire, NV<br>Paper: 5.0% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Galena Park, TX | 5.4% | 93.2% | 98.6% | 52.0% | 0.3% | Pass/Low | Gypsum: (FGD:) 93.3% from Harris, TX<br>Paper: 5.4% (Face) from Galena Park, TX and (Back) from Galena Park, TX |
| Hagersville, ON, Canada | 4.8% | 21.2% | 26.1% | 15.5% | 0.4% | Pass/Low | Gypsum: (FGD:) 21.2% from Tomphins, NY (Natural) 77.1% from On Site<br>Paper: 4.8% (Face) from Otsego, MI and (Back) from Oakfield, NY |
| Jacksonville, FL | 4.9% | 29.9% | 34.8% | 19.9% | 0.3% | Pass/Low | Gypsum: (FGD:) 29.9% from Duval, FL (Natural) 61.6% from Nova Scotia, Canada<br>Paper: 4.9% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Montreal Quebec, Canada | 5.0% | 94.6% | 99.6% | 52.3% | 0.4% | Pass/Low | Gypsum: (FGD:) 94.6% from New Brunswick, Canada<br>Paper: 5.0% (Face) from Otsego, MI and (Back) from Oakfield, NY |
| Norfolk, VA | 5.1% | 93.1% | 98.2% | 51.7% | 0.4% | Pass/Low | Gypsum: (FGD:) 93.2% from Chesterfield, VA<br>Paper: 5.1% (Face) from Otsego, MI and (Back) from Oakfield, NY |
| Plaster City, CA | 4.9% | 0.0% | 4.9% | 4.9% | 0.4% | Pass/Low | Gypsum: (Natural) 88.1% from On Site<br>Paper: 4.9% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Rainier, OR | 4.8% | 0.0% | 4.8% | 4.8% | 0.3% | Pass/Low | Gypsum: (Natural) 94.1% from Mexico<br>Paper: 4.8% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Shoals, IN | 4.7% | 37.7% | 42.4% | 23.6% | 0.4% | Pass/Low | Gypsum: (FGD:) 37.8% from Pike, IN (Natural) 56.7% from On Site<br>Paper: 4.7% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Sigard, UT | 5.5% | 0.0% | 5.5% | 5.5% | 0.2% | Pass/Low | Gypsum: (Natural) 94.8% from On Site<br>Paper: 5.5% (Face) from North Kansas City, MO and (Back) from North Kansas City, MO |
| Southard, OK | 5.8% | 0.0% | 5.8% | 5.8% | 0.4% | Pass/Low | Gypsum: (Natural) 88.0% from On Site<br>Paper: 5.8% (Face) from North Kansas City, MO and (Back) from North Kansas City, MO |
| Sperry, IA | 6.3% | 1.0% | 7.3% | 6.8% | 0.4% | Pass/Low | Gypsum: (FGD:) 1.0% from Muscatine, IA (Natural) 91.1% from On Site<br>Paper: 6.3% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Stony Point, NY | 5.6% | 4.6% | 10.2% | 7.9% | 0.8% | Pass/Low | Gypsum: (FGD:) 4.7% from Montour, PA (Natural) 83.3% from Nova Scotia, Canada<br>Paper: 5.6% (Face) from Clark, NJ and (Back) from Clark, NJ |
| Sweetwater, TX | 6.0% | 0.0% | 6.0% | 6.0% | 0.4% | Pass/Low | Gypsum: (Natural) 92.0% from On Site<br>Paper: 6.0% (Face) from Galena Park, TX and (Back) from North Kansas City, MO |
| Washingtonville, PA | 5.3% | 92.9% | 98.2% | 51.8% | 0.5% | Pass/Low | Gypsum: (FGD:) 93.0% from Montour, PA<br>Paper: 5.3% (Face) from Otsego, MI and (Back) from Oakfield, NY |
| AWL - St. John, New Brunswick, Canada | 4.9% | 89.1% | 94.0% | 49.5% | 0.3% | Pass/Low | Gypsum: (FGD:) 89.1% from Belledune, New Brunswick, Canada<br>Paper: 4.9% (Face) from Otsego, MI and (Back) from Oakfield, NY |

# Sustainability Tables

| 5/8" SHEETROCK® FIRECODE Gypsum Panels: | | | | | | | Values based on average during:2009 January through December |
|---|---|---|---|---|---|---|---|
| **USG Manufacturing Locations:** | **Post-Cons** | **Pre-Cons** | **Recycle Content** | **Weighted Recycle Content** | **Rapid Renew** | **EQ 4 CHPS** | **Product Raw materials and Sources:** Based on above values rounded down to the first decimal place. |
| Aliquippa, PA | 3.4% | 94.1% | 97.5% | 50.5% | 0.2% | Pass/Low | Gypsum: (FGD:) 94.2% from Pleasants, WV<br>Paper: 3.4% (Face) from Otsego, MI and (Back) from Oakfield, NY |
| Baltimore, MD | 3.7% | 22.9% | 26.6% | 15.2% | 0.3% | Pass/Low | Gypsum: (FGD:) 22.9% from York, PA (Natural) 72.6% from Nova Scotia, Canada<br>Paper: 3.7% (Face) from Galena Park, TX and (Back) from Galena Park, TX |
| Bridgeport, AL | 3.5% | 94.2% | 97.5% | 50.6% | 0.3% | Pass/Low | Gypsum: (FGD:) 94.3% from Bartow, GA<br>Paper: 3.5% (Face) from Clark, NJ and (Back) from Clark, NJ |
| East Chicago, IN | 3.3% | 96.4% | 97.5% | 51.5% | 0.1% | Pass/Low | Gypsum: (FGD:) 96.4% from Porter, IN<br>Paper: 3.3% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Empire, NV | 3.5% | 0.0% | 3.5% | 3.5% | 0.2% | Pass/Low | Gypsum: (Natural) 96.3% from Empire, NV<br>Paper: 3.5% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Galena Park, TX | 3.7% | 94.2% | 97.9% | 50.8% | 0.2% | Pass/Low | Gypsum: (FGD:) 94.2% from Harris, TX<br>Paper: 3.7% (Face) from Galena Park, TX and (Back) from Galena Park, TX |
| Hagersville, ON, Canada | 3.4% | 21.1% | 24.5% | 14.0% | 0.3% | Pass/Low | Gypsum: (FGD:) 21.1% from Tomphins, NY (Natural) 76.4% from On Site<br>Paper: 3.4% (Face) from Otsego, MI and (Back) from Oakfield, NY |
| Jacksonville, FL | 3.4% | 31.2% | 34.6% | 19.0% | 0.2% | Pass/Low | Gypsum: (FGD:) 31.2% from Duval, FL (Natural) 64.2% from Nova Scotia, Canada<br>Paper: 3.3% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Montreal Quebec, Canada | 3.4% | 93.7% | 97.1% | 50.3% | 0.2% | Pass/Low | Gypsum: (FGD:) 93.7% from New Brunswick, Canada<br>Paper: 3.5% (Face) from Otsego, MI and (Back) from Oakfield, NY |
| Norfolk, VA | 3.5% | 90.4% | 93.9% | 48.7% | 0.3% | Pass/Low | Gypsum: (FGD:) 90.4% from Chesterfield, VA<br>Paper: 3.5% (Face) from Otsego, MI and (Back) from Oakfield, NY |
| Plaster City, CA | 3.3% | 0.0% | 3.3% | 3.3% | 0.3% | Pass/Low | Gypsum: (Natural) 93.3% from On Site<br>Paper: 3.3% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Rainier, OR | 3.3% | 0.0% | 3.3% | 3.3% | 0.3% | Pass/Low | Gypsum: (Natural) 97.1% from Mexico<br>Paper: 3.3% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Shoals, IN | 3.3% | 37.4% | 40.7% | 22.0% | 0.2% | Pass/Low | Gypsum: (FGD:) 37.5% from Pike, IN (Natural) 56.2% from On Site<br>Paper: 3.3% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Sigard, UT | 4.0% | 0.0% | 4.0% | 4.0% | 0.2% | Pass/Low | Gypsum: (Natural) 96.6% from On Site<br>Paper: 4.0% (Face) from North Kansas City, MO and (Back) from North Kansas City, MO |
| Southard, OK | 3.7% | 0.0% | 3.7% | 3.7% | 0.3% | Pass/Low | Gypsum: (Natural) 90.3% from On Site<br>Paper: 3.7% (Face) from North Kansas City, MO and (Back) from North Kansas City, MO |
| Sperry, IA | 3.4% | 1.0% | 4.4% | 3.9% | 0.4% | Pass/Low | Gypsum: (FGD:) 1.0% from Muscatine, IA (Natural) 94.9% from On Site<br>Paper: 3.4% (Face) from Otsego, MI and (Back) from Otsego, MI |
| Stony Point, NY | 3.6% | 4.7% | 8.3% | 6.0% | 0.3% | Pass/Low | Gypsum: (FGD:) 4.8% from Montour, PA (Natural) 85.5% from Nova Scotia, Canada<br>Paper: 3.6% (Face) from Clark, NJ and (Back) from Clark, NJ |
| Sweetwater, TX | 4.0% | 0.0% | 4.0% | 4.0% | 0.4% | Pass/Low | Gypsum: (Natural) 96.7% from On Site<br>Paper: 4.0% (Face) from Galena Park, TX and (Back) from North Kansas City, MO |
| Washingtonville, PA | 3.4% | 94.8% | 98.2% | 50.8% | 0.3% | Pass/Low | Gypsum: (FGD:) 94.8% from Montour, PA<br>Paper: 3.4% (Face) from Otsego, MI and (Back) from Oakfield, NY |
| AWL - St. John, New Brunswick, Canada | 3.4% | 90.5% | 93.9% | 48.7% | 0.2% | Pass/Low | Gypsum: (FGD:) 90.5% from Belledune, New Brunswick, Canada<br>Paper: 3.4% (Face) from Otsego, MI and (Back) from Oakfield, NY |

# Sustainability Tables

| Related USGBC LEED for Schools Credits | | MR 4.1 & 4.2 | | | | EQ 8 | EQ Pre 3 & EQ 9 | | | EQ 3.2 & EQ 4 | | MR 6 | MR 5.1/5.2 & EQ 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Product Family: Acoustical Panels & Tiles** | | **Post-Consumer** | | **Pre-Consumer** | | **LR** | **NRC** | **CAC** | **Approx. Density** lbs/cu.ft. | **CHPS** | **Formaldehyde & VOC Emissions** | **Rapid Renew** | **Raw Materials/Comments** (percentage by weight) Values based on average during:2009 January through December |
| | | Class A | FC | Class A | FC | | | | | | | | |
| **'X'-technology - Cloquet, MN** | ASTRO™ *CLIMAPLUS*™ (Illusion) | 0% | 0% | 65% | 68% | .86 | .50/.55 | 35 | 18-21 | **Pass** | **Low** | 3.5% | **'X'-technology manufactured at Cloquet, MN**<br><br>Mineral Wool(Pre-consumer%) from Red Wing, MN; 5% Polymer Emulsion (local), Starch (Rapid Renew %)<br>FC panels contain 20% Clay |
| | ECLIPSE™ *CLIMAPLUS*™ (Illusion) | 0% | 0% | 77% | 62% | .86 | .65/.70 | 35 | 17 | | | 1-3% | |
| | MILLENNIA™ *CLIMAPLUS*™ (Illusion) & High NRC | 0% | 0% | 75% | 61% | .87 | .70/.75 | 35 | 17 | | | 1-3.5% | |
| | MARS™ *CLIMAPLUS*™ | 0% | NA | 75.2% | NA | .89 | .70 | 35 | 17 | | | 3% | |
| | MARS™ *CLIMAPLUS*™ High NRC | 0% | NA | 77% | NA | .89 | .80 | 35 | 17 | | | 3% | |
| **Cast products - Walworth, WI** | BRIO™ *CLIMAPLUS*™ | 0% | NA | 71% | NA | .81 | .70 | 35 | 22 | **Pass/ Zero** | **Zero** | 12.5% | **Cast products manufactured at Walworth, WI**<br><br>Mineral Wool(Pre-consumer %) made onsite, Starch (rapid Renew %)<br>Class A panels 10% Plaster of Paris from East Chicago, IN,<br>FC panels 14% Clay |
| | "F" FISSURED™ | 0% | NA | 71% | NA | .79 | .70 | 35 | 23 | | | 12.5% | |
| | FRESCO™ *CLIMAPLUS*™ | 0% | NA | 71% | NA | .83 | .70 | 35 | 22 | | | 12.5% | |
| | FROST™, FROST™ *CLIMAPLUS*™ | 0% | 0% | 71% | 71% | .85 | .70 | 36/40 | 22 | | | 12.5% | |
| | FROST™ *CLIMAPLUS*™ HI-NRC | 0% | 0% | 71% | 71% | .85 | .75 | 38/40 | 22 | | | 12.5% | |
| | GLACIER™ | 0% | 0% | 71% | 71% | .70 | .65 | 35 | 20 | | | 12.5% | |
| | SANDRIFT™ *CLIMAPLUS*™ | 0% | 0% | 71% | 71% | .83 | .70 | 38 | 20 | | | 12.5% | |
| | SUMMIT™ *CLIMAPLUS*™ | 0% | NA | 61% | NA | .81 | .70 | 38/40 | 24 | | | 11% | |
| **WetFelt Products - Greenville, MS** | OLYMPIA™ MICRO *CLIMAPLUS*™ (Illusion) | 13% | NA | 39% | NA | .87 | .50 | 30/35 | 18 | **Pass** | **Low** | 8% | **WetFelt Products manufactured at Greenville, MS**<br><br>Mineral Wool(Pre-consumer %) railed from Red Wing, MN; Perlite 20-50%; Recycled Paper (Post-consumer %); Starch (Rapid Renew %); and Clay 2-12% |
| | ASPEN™ (Illusion) | 16% | NA | 27.3% | NA | .87 | .52/.55 | 35/40 | 18-22 | | | 8.2% | |
| | PEBBLED™ *CLIMAPLUS*™ | 15.4% | NA | 26.9% | NA | .86 | .55 | 35 | 14 | | | 8.1% | |
| | ROCK FACE™ *CLIMAPLUS*™ | NA | 6% | NA | 43% | .86 | .55 | 35 | 24 | | | 7% | |
| | TOUCHSTONE™ *CLIMAPLUS*™ | NA | 6% | NA | 42.4% | .86 | .55 | 35 | 26 | | | 7% | |
| | RADAR™ *CLIMAPLUS*™ (Illusion) | 17.2% | 6% | 13% | 42.3% | .84 | .55 | 33/35 | 13-14 | | | 7% | |
| | FISSURED™ | 17% | 6% | 8% | 42.4% | .81 | .55 | 33/35 | 12-20 | | | 7% | |
| | RADAR™ (Illusion) | 17% | 6% | 8% | 42.4% | .84-.85 | .55/.60 | 33/35 | 13-14 | | | 7% | |

# Sustainability Tables

| Related USGBC LEED for Schools Credits | | MR 4.1 & 4.2 | | | | EQ 8 | EQ Pre 3 & EQ 9 | | | EQ 3.2 & EQ 4 | | MR 6 | MR 5.1/5.2 & EQ 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product Family: Acoustical Panels & Tiles | | Post-Consumer | | Pre-Consumer | | LR | NRC | CAC | Approx. Density lbs/cu.ft. | CHPS | Formaldehyde & VOC Emissions | Rapid Renew | Raw Materials/Comments (percentage by weight) Values based on average during:2009 January through December |
| | | Class A | FC | Class A | FC | | | | | | | | |
| Wet felt products - Cloquet, MN | RADAR™ *CLIMAPLUS*™ (Illusion) | 18.43% | 6% | 12.8% | 44% | .84 | .55 | 33/35 | 13-14 | **Pass** | **Low** | 6-8% | **Wet felt products manufactured at Cloquet, MN;** Mineral Wool(Pre-consumer %) from Red Wing, MN, Perlite 20-50%; Recycled Paper (Post-consumer %) local; Starch (Rapid Renew %); Clay 2-12% |
| | FISSURED™ | 17.3% | 6% | 7% | 44% | .81 | .50/.55 | 33/35 | 12-20 | | | 6-7% | |
| | RADAR™ | 17.3% | 5.6% | 7.4% | 43/7% | .85 | .50/.55 | 33/40 | 12-20 | | | 6-7% | |
| | RADAR™ *CLIMAPLUS*™ High CAC/NRC | NA | 1% | NA | 56.2% | .84 | .55/.70 | 40/35 | 18 | | | 10% | |
| | CLEAN ROOM™ *CLIMAPLUS*™ | NA | 6% | NA | 45% | .79 | .55 | 35 | 21 | No | Meets state of Washington | 6% | |
| | RADAR™ Ceramic *CLIMAPLUS*™ | NA | 0% | NA | 44.2% | .82 | .50 | 40 | 26 | **Pass/ Zero** | **Zero** | 0% | |

| Related USGBC LEED for Schools Credits | MR 4.1 & 4.2 | | | | EQ 8 | EQ Pre 3 & EQ 9 | | | EQ 3.2 & EQ 4 | | MR 6 | MR 5.1/5.2 & EQ 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product Family: Specialty Panels & Tiles | Post-Consumer | | Pre-Consumer | | LR | NRC | CAC | Approx. Density lbs/cu.ft. | CHPS | Formaldehyde & VOC Emissions | Rapid Renew | Raw Materials/Comments (%s by weight) Values based on average during:2009 January through December |
| | Class A | FC | Class A | FC | | | | | | | | |
| PREMIER HI-LITE™ *CLIMAPLUS*™ | 8.9% | NA | 26.7% | NA | .76 | .60/.75 | 20 | 28 | No | Meets state of Washington | 0% | **Glass Fiber Products Manufactured at Greenville, MS** 90% Glass Fiber base mat; 9% Glass Fiber facing |
| HALCYON™ *CLIMAPLUS*™ (varies w/ thickness and backing) | 39% | NA | 1% | NA | .88 | .90/1.00 | 20/30 | 6 | | | 0% | |
| PREMIER NUBBY™ *CLIMAPLUS*™ (varies w/ thickness and backing) | 29% | NA | 0% | NA | .87 | .85/.90 | 25 | 6 | | | 0% | |
| SHEETROCK™ lay-in ceiling panel *CLIMAPLUS*™ | NA | *** | NA | *** | .77 | — | 35/40 | 48 | No | Meets state of Washington | 1% | **Gypsum Panel and Vinyl product manufactured at Shoals, IN** (Gypsum Panels onsite)**; Sweetwater, TX** (Gypsum Panels onsite)**; Stony Point, NY** (Gypsum Panels onsite)**; and Plaster City, CA** (Gypsum Panel onsite) |
| SHEETROCK™ lay-in CLEAN ROOM | NA | *** | NA | *** | .77 | — | 40 | 48 | **No** | Meets state of Washington | 1% | **Gypsum Panel and Vinyl product manufactured at Sweetwater, TX** (Gypsum Panel onsite) |

# Sustainability Tables

| USGBC LEED Credits | MR 4 | | EQ 8 | MR 5 |
|---|---|---|---|---|
| **Product Family:** Specialty Panels & Grid | **Post-Cons** | **Pre-Consumer** | **NRC** | **Raw Materials/Comments** (%s by weight) Values based on average during:2009 January through December |
| Billo | 0% | 0% | N/A | US produced virgin polycarbonate raw material, manufactured in Franklin, WI |
| Cadre & Quadra | 0% | 0% | N/A | Tijuana, MX |
| Celebration steel suspension System | 0% | 25% | N/A | US and foreign steel, manufactured in Westlake, OH |
| Celebration aluminum panels | 68% | 22% | Up to .65 with A116 perf. | US aluminum, manufactured in Oakville, ON |
| $C^2$ Paired Compasso, steel | 0% | 25% | N/A | US and foreign steel, manufactured in Westlake, OH |
| Compasso (2 ¼", 4",6" and 8" painted steel) | 0% | 25% | N/A | US and foreign steel, manufactured in Westlake, OH |
| Compasso (10" and 12" painted aluminum) | 68% | 22% | N/A | US aluminum, manufactured in Oakville, ON |
| Compasso Slim, aluminum | 0% | 0% | N/A | Virgin aluminum, manufactured in City of Industry, CA |
| Curvatura steel suspension system and trim | 0% | 25% | N/A | US and foreign steel, manufactured in Westlake, OH |
| Curvatura aluminum panels | 68% | 22% | N/A | US aluminum, manufactured in Oakville, ON |
| Curvatura Diamondflex steel panels | 0% | 25% | N/A | US and foreign steel, manufactured in Vernon Hills, IL |
| Curvatura Lexan® panels | 0% | 0% | N/A | Coburg, ON |
| Geometrix aluminum panels | 68% | 22% | N/A | US aluminum, manufactured in Oakville, ON |
| GridWare, steel suspension | 0% | 25% | N/A | US and foreign steel, manufactured in Westlake, OH |
| Libretto aluminum panels | 68% | 22% | N/A | US aluminum, manufactured in Oakville, ON |
| Libretto profile trim and Suspension, steel | 0% | 25% | N/A | US and foreign steel, manufactured in Westlake, OH |
| Panz aluminum panels | 68% | 22% | Up to .65 with A116 perf. | US aluminum, manufactured in Oakville, ON |
| Paraline aluminum pans | 68% | 22% | N/A | US and foreign aluminum, manufactured in Westlake, OH |
| Topo aluminum suspension | 0% | 50% | N/A | US aluminum, manufactured in Oakville, ON |
| Topo Lexan® panels | 0% | 0% | N/A | US produced virgin polycarbonate raw material, manufactured in Franklin, WI |
| Translucents, Lexan® panels | 0% | 0% | N/A | US produced virgin polycarbonate raw material, manufactured in Franklin, WI |
| Translucents, FRP panels | 0% | 0% | NA | |
| Transparencies acrylic panels | 0% | 0% | N/A | Westlake, OH |
| WireWorks steel panels | 80% | 20% | N/A | US and foreign steel, manufactured in Chicago, IL |

# Sustainability Tables

| | | | | |
|---|---|---|---|---|
| Translucents, PETG panels | 0% | 40% | NA | |

**The above information is the values for each product from various plant locations average over the year of 2009, content changes from plant to plant and even day to day at any one plant due to availability**. USG has taken strict and elaborate steps to publish the most actuate information in the industry. Recycled content is no exception! While gypsum based panels, commonly referred to as Drywall may have many ingredients and are not all alike, all panels have these core ingredients: gypsum, face papers (front and back), starch as a binder, paper fiber in the core, and air. The fire listed products are regulated by weight and their ingredient percentages and would also have glass fibers in the core as an additional base ingredient. The percentage of the ingredients changes very little from manufacture to manufacture, for example the gypsum core of accounts for about 94% of the total by weight, paper (including face, back papers and core fibers) is about 5% with about 0.5% starch for standard ½" panels. Thicker panels will have less paper percentage due to the increase weight and core thickness.

Recycled content of any given plant and panel will vary based on raw material source and availabilities. All manufacturers use 100% recycled paper in the production of their face papers. However, this secondary material comes from multiple sources, usually local. There are two main sources for gypsum in the U.S.: Natural – mined material which was laid down in large fields billions of years ago. The largest open field of gypsum in the world is White Sands National Park in New Mexico, it is not a source used for drywall production. The other source is an Industrial Process material; the most common source is from the desulfurization of coal powered electrical plants. The standard process of limestone scrubbing of the stacks on coal-fired power plants produces calcium sulfite, a chemical having little or no use and therefore is discarded. This desulfurization can be modified to produce calcium sulfate, with added cost to the power company. This material can be used by gypsum drywall companies and cement companies. This material is considered to be a post-industrial material and therefore count as most of drywall's recycled content.

USG is committed to provide replicable scientific data supporting our product claims, and is committed to marketing conduct inline with the letter and spirit of the **Federal Trade Commission Environmental Marketing Guides 16 C.F.R. § 260.7(d).**

**Test Protocols**:

Recycled Content (**Post-Consumer & Post-Industrial**) per Federal Trade Commission Environmental Marketing Guides. **Post-Industrial** and **Pre-Consumer** are one in the same under the USGBC LEED Rating systems!

**Weighted Recaptured Gypsum** is the term used to refer to the value defined for LEED MR4.

**LR** (Light Reflectance) tested per ASTM C1477.

**NRC** (Noise Reduction Coefficient per ASTM C423.

**CAC** (Ceiling Attenuation Class) tested per ASTM 1414.

**TVOC** (Total Volatile Organic Compound) emission measured per ASTM D 5116.

**CHPS** (Collaborative for High Performance Schools**)** follow EPA Section 01350 for VOC's emission.

**Formaldehyde** emissions measured during CHPS testing per Section 01350, for most products CHPS allows 13.5 ppb.

**Zero emissions** is defined as the quantity less than test chamber background concentrations as required by Section 3.8.4.2 of the "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, Supercedes previous versions of small-scale environmental chamber testing portion of California Specification 01350, July 15, 2004." Section 3.8.4.3 states "Background concentrations in the empty chamber ventilated at 1.0 air changes per hour shall not exceed 2 $\mu g\ m^{-3}$ for any individual VOC, and 25 $\mu g\ m^{-3}$ for TVOC.

**For the latest information on LEED Rating Systems visit www.usgbc.org or your LEED Rating System Reference Guide.**

**LEED related Credits MR4 – Recycled Content: (**Post-consumer Percentage + ½ Pre-consumer Percentage) * product cost.

**LEED related Credits MR5 – Regional Materials:** extracted, harvested or recovered, as well as manufactured, within 500 miles of the project site. For products like plaster that are mixed on site with other materials like sand, lime and water; each material within 500 miles (as-the-crow-flies: calculated along the assumed spherical earths surface) of the project can be counted for this credit.

**LEED related Credits MR6 – Rapidly Renewing Content:** products made from materials with a ten year or less growth cycle. For products made of multiple raw materials the fraction of the assembly that is considered rapidly renewable is determined by weight. That fraction is then applied to the material's cost to determine the rapidly renewable materials cost for that assembly.

**LEED related Prerequisite EQ3 (Schools ONLY) – Minimum Acoustical Performance:** sound-absorptive finishes for compliance with reverberation times requirements as specified in ANSI Standard S12.60-2002**.**

**LEED related Credits MR3.2 (NC, Schools & CI ONLY) – IAQ Management Plan:** Reduce emission and absorption during construction.

**LEED related Prerequisite EQ4 - Low-Emitting Materials:** content various based on product group or emissions meeting CHPS.

**LEED related Prerequisite EQ8 – Daylighting & Views:** increased daylighting & views from deeper interior spaces.

**LEED related Prerequisite EQ9 (Schools ONLY) – Enhanced Acoustical Performance:** design the building shell, classroom partitions and other partitions to meet the Sound Transmission Class (STC) requirement of at least 35. AND Background Noise: reduce level to 40 dBA or less from HVAC.

**For the latest information on USG products and Sustainability visit USG *Design Studio*: http://www.usgdesignstudio.com/leed.asp**