

The LEED® (Leadership in Energy & Environmental Design) Green Building Rating System is the nationally accepted benchmark for the design and construction of high performance green buildings. While the use of no single construction material can earn LEED® points, SAFTIFIRST's fire rated glass and framing products can contribute to a number of LEED® 2009 credits including:



## Energy & Atmosphere

*Reducing energy is an essential aspect of any sustainable building design. Utilizing energy efficient products and taking advantage of daylighting helps to achieve significant energy savings.*

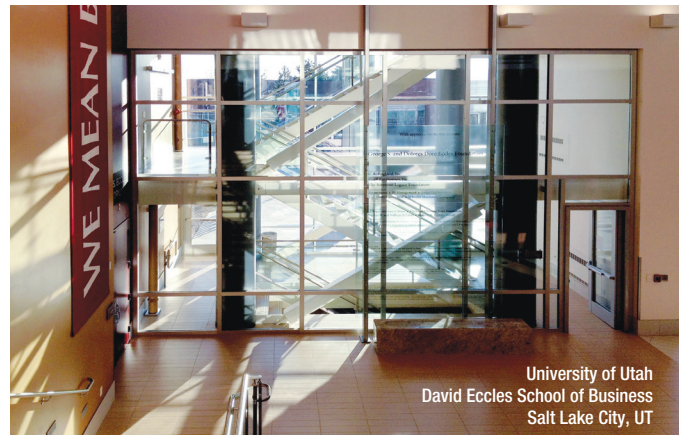
### **How SAFTIFIRST products can help:**

#### Prerequisite 2 – Minimum Energy Performance

SAFTIFIRST products can be part of a strategy to help achieve the required minimum energy performance for LEED® certification.

#### Credit 1 – Optimize Energy Performance

Our glass products have the option of being insulated with low-e or energy performance glazing to further improve the energy performance of the building. Our SuperLite II-XL and GPX Framing assemblies have NFRC (National Fenestration Ratings Council) certifications for U-Factor, Solar Heat Gain Coefficient and Condensation Resistance. In addition, our glass products can be used as part of daylighting strategies and passive solar designs to further reduce the amount of energy consumed by the building. Using fire rated glass maximizes light penetration, even from artificial lighting, by providing light transmittance in areas where opaque walls are the norm.



## Materials & Resources

*Reduce, reuse, recycle. Three essential steps in conservation of resources. These elements, in addition to consideration of local/regional sourcing of materials, are a few of the important ways to reduce impacts.*

### **How SAFTIFIRST products can help:**

#### Credits 2.1 and 2.2 – Construction Waste Management

SAFTIFIRST products are supplied to the construction site in the exact quantities needed, however should products be damaged in transit, both the glass and the metal framing systems can be recycled. Products are either delivered on wooden pallets or in shipping boxes – both of which are made from recycled materials and can be recycled after use.

#### Credits 4.1 and 4.2 – Recycled Content

Steel used in the GPX framing system contains approximately 30% by weight pre-consumer recycled content. Aluminum used in the GPX framing system contains approximately 25% by weight pre-consumer recycled content.

#### Credits 5.1 and 5.2 – Regional Materials

All products manufactured by SAFTIFIRST are made in our plant in Merced, CA. The primary raw material used in SAFTIFIRST glass products, sand, is sourced from less than 70 miles from the plant. All projects in California and those located in some cities in Nevada and Arizona may qualify for this credit if they are within 500 miles of the Merced facility.

# Indoor Environmental Quality

*Creating a healthy indoor environment is important for our wellbeing.*

## **How SAFTIFIRST products can help:**

All SAFTIFIRST glass products can be used to provide daylighting and visual access. In addition, SuperLite II-XL can be used as a fire resistive transparent wall to provide clear, transparent glazing that blocks radiant heat transfer.

### Credit 4 – Low-Emitting Materials

SAFTIFIRST glass products meet the intent of eliminating VOC's from the indoor environment when used as interior walls and glazing.

### Credit 8 – Daylight and Views

SAFTIFIRST glass products can be an integral part of a strategy to provide both daylight and views while still providing sound control, security, and privacy. SuperLite II-XL transparent walls can be used in lieu of traditional opaque fire walls to allow natural light penetration and preserve views deep within a building.

# Innovation and Design

### Cradle to Cradle (C2C) Certification

The Cradle to Cradle (C2C) certification for products is a recognized innovation credit when at least 2.5% (by cost) of the materials on a project achieve C2C certification. PYRAN Platinum by SAFTIFIRST is currently the only glass ceramic on the market that meets these requirements.

### Acoustic Performance

Acoustic design is another potential area for Innovation in LEED-NC and is part of the LEED® for Schools rating system (IEQ credit 9). The criteria in LEED® for Schools requires that windows in the building shell, classroom partitions and other core learning space partitions meet an STC rating of at least 35. All SuperLite II-XL, SuperLite X-90 and PYRAN Platinum L products meet these STC requirements.

# Beyond LEED®

*While LEED® is an important measure of green building, sustainable building design goes beyond LEED®. Sustainable buildings are high performance buildings that incorporate features that provide resiliency and durability, as well as minimize their environmental footprint. This includes not only responsiveness to climate change, but also to fire, hurricanes and floods.*

## **SAFTIFIRST products can contribute to the following features of a high-performance, resilient building:**

### Safety and Security

Resilience is a sometimes overlooked aspect of sustainable buildings, but one that is essential to long-term performance. Resilient buildings withstand what nature dishes out. They include fire resistant construction and resistance to wind-borne debris and other impacts – all of which promote occupant health and safety. All SAFTIFIRST glass, framing and PYRAN Platinum products protect against fire. SuperLite II-XL can be manufactured to provide resistance to impacts, including ballistic, hurricane and blast.

Another aspect of safety and security involves vision and lines of sight. SAFTIFIRST glass products can provide visual access while still providing security. This is especially true for stairwells and other areas where attack is prone to occur because of the lack of visual access.

### Environmentally Preferable Materials and Products

SAFTIFIRST glass products are made primarily from sand, an abundant material, and do not contain toxic materials. This includes the PYRAN Platinum line of products, which are the only glass ceramics currently available that are free from toxins and hazardous heavy metals during the manufacturing process. This superior environmental performance has been recognized in the C2C (Cradle to Cradle) certification of PYRAN Platinum.

To learn more about SAFTIFIRST's fire rated glass and framing products,  
please visit **www.safti.com** or call **888.653.3333**

# LEED® 2009 for New Construction and Major Renovation Project Scorecard

**SAFTIFIRST™** Fire Rated Glass & Framing can contribute to the **credits highlighted below.**

Yes	?	No			
			<b>Sustainable Sites</b>		<b>26 Points</b>
<input checked="" type="checkbox"/>			Prereq 1	<b>Construction Activity Pollution Prevention</b>	<b>Required</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1	<b>Site Selection</b>	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2	<b>Development Density and Community Connectivity</b>	<b>5</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3	<b>Brownfield Redevelopment</b>	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.1	<b>Alternative Transportation</b> - Public Transportation Access	<b>6</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.2	<b>Alternative Transportation</b> - Bicycle Storage and Changing Rooms	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.3	<b>Alternative Transportation</b> - Low-Emitting and Fuel-Efficient Vehicles	<b>3</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4.4	<b>Alternative Transportation</b> - Parking Capacity	<b>2</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 5.1	<b>Site Development</b> - Protect or Restore Habitat	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 5.2	<b>Site Development</b> - Maximize Open Space	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 6.1	<b>Stormwater Design</b> - Quantity Control	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 6.2	<b>Stormwater Design</b> - Quality Control	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 7.1	<b>Heat Island Effect</b> - Nonroof	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 7.2	<b>Heat Island Effect</b> - Roof	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 8	<b>Light Pollution Reduction</b>	<b>1</b>
			<b>Water Efficiency</b>		<b>10 Points</b>
<input checked="" type="checkbox"/>			Prereq 1	<b>Water Use Reduction</b>	<b>Required</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1	<b>Water Efficient Landscaping</b>	<b>2 to 4</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Reduce by 50%	<b>2</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> No Potable Water Use or Irrigation	<b>4</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2	<b>Innovative Wastewater Technologies</b>	<b>2</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3	<b>Water Use Reduction</b>	<b>2 to 4</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Reduce by 30%	<b>2</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Reduce by 35%	<b>3</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Reduce by 40%	<b>4</b>
			<b>Energy &amp; Atmosphere</b>		<b>35 Points</b>
<input checked="" type="checkbox"/>			Prereq 1	<b>Fundamental Commissioning of Building Energy Systems</b>	<b>Required</b>
<input checked="" type="checkbox"/>			Prereq 2	<b>Minimum Energy Performance</b>	<b>Required</b>
<input checked="" type="checkbox"/>			Prereq 3	<b>Fundamental Refrigerant Management</b>	<b>Required</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 1	<b>Optimize Energy Performance</b>	<b>1 to 19</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 12% for New Buildings or 8% for Existing Building Renovations	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 14% for New Buildings or 10% for Existing Building Renovations	<b>2</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 16% for New Buildings or 12% for Existing Building Renovations	<b>3</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 18% for New Buildings or 14% for Existing Building Renovations	<b>4</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 20% for New Buildings or 16% for Existing Building Renovations	<b>5</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 22% for New Buildings or 18% for Existing Building Renovations	<b>6</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 24% for New Buildings or 20% for Existing Building Renovations	<b>7</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 26% for New Buildings or 22% for Existing Building Renovations	<b>8</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 28% for New Buildings or 24% for Existing Building Renovations	<b>9</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 30% for New Buildings or 26% for Existing Building Renovations	<b>10</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 32% for New Buildings or 28% for Existing Building Renovations	<b>11</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 34% for New Buildings or 30% for Existing Building Renovations	<b>12</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 36% for New Buildings or 32% for Existing Building Renovations	<b>13</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 38% for New Buildings or 34% for Existing Building Renovations	<b>14</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 40% for New Buildings or 36% for Existing Building Renovations	<b>15</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 42% for New Buildings or 38% for Existing Building Renovations	<b>16</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 44% for New Buildings or 40% for Existing Building Renovations	<b>17</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 46% for New Buildings or 42% for Existing Building Renovations	<b>18</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> Improve by 48%+ for New Buildings or 44%+ for Existing Building Renovations	<b>19</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 2	<b>On-Site Renewable Energy</b>	<b>1 to 7</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 1% Renewable Energy	<b>1</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 3% Renewable Energy	<b>2</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 5% Renewable Energy	<b>3</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 7% Renewable Energy	<b>4</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 9% Renewable Energy	<b>5</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 11% Renewable Energy	<b>6</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 13% Renewable Energy	<b>7</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 3	<b>Enhanced Commissioning</b>	<b>2</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 4	<b>Enhanced Refrigerant Management</b>	<b>2</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 5	<b>Measurement and Verification</b>	<b>3</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Credit 6	<b>Green Power</b>	<b>2</b>

Yes	?	No			
			<b>Materials &amp; Resources</b>		
			<b>14 Points</b>		

<b>Y</b>		Prereq 1	<b>Storage and Collection of Recyclables</b>	<b>Required</b>
		Credit 1.1	<b>Building Reuse</b> - Maintain Existing Walls, Floors and Roof	<b>1 to 3</b>
			Reuse 55%	1
			Reuse 75%	2
			Reuse 95%	3
		Credit 1.2	<b>Building Reuse</b> - Maintain Interior Nonstructural Elements	1
		Credit 2	<b>Construction Waste Management</b>	<b>1 to 2</b>
			50% Recycled or Salvaged	1
			75% Recycled or Salvaged	2
		Credit 3	<b>Materials Reuse</b>	<b>1 to 2</b>
			Reuse 5%	1
			Reuse 10%	2
		Credit 4	<b>Recycled Content *</b>	<b>1 to 2</b>
			10% of Content	1
			20% of Content	2
		Credit 5	<b>Regional Materials</b>	<b>1 to 2</b>
			10% of Materials	1
			20% of Materials	2
		Credit 6	<b>Rapidly Renewable Materials</b>	1
		Credit 7	<b>Certified Wood</b>	1
			<b>* SAFTIFIRST GPX metal framing systems</b>	

Yes	?	No			
			<b>Indoor Environmental Quality</b>		
			<b>15 Points</b>		

<b>Y</b>		Prereq 1	<b>Minimum Indoor Air Quality Performance</b>	<b>Required</b>
<b>Y</b>		Prereq 2	<b>Environmental Tobacco Smoke (ETS) Control</b>	<b>Required</b>
		Credit 1	<b>Outdoor Air Delivery Monitoring</b>	1
		Credit 2	<b>Increased Ventilation</b>	1
		Credit 3.1	<b>Construction Indoor Air Quality Management Plan</b> - During Construction	1
		Credit 3.2	<b>Construction Indoor Air Quality Management Plan</b> - Before Occupancy	1
		Credit 4.1	<b>Low-Emitting Materials</b> - Adhesives and Sealants	1
		Credit 4.2	<b>Low-Emitting Materials</b> - Paints and Coatings	1
		Credit 4.3	<b>Low-Emitting Materials</b> - Flooring Systems	1
		Credit 4.4	<b>Low-Emitting Materials</b> - Composite Wood and Agrifiber Products	1
		Credit 5	<b>Indoor Chemical and Pollutant Source Control</b>	1
		Credit 6.1	<b>Controllability of Systems</b> - Lighting	1
		Credit 6.2	<b>Controllability of Systems</b> - Thermal Comfort	1
		Credit 7.1	<b>Thermal Comfort</b> - Design	1
		Credit 7.2	<b>Thermal Comfort</b> - Verification	1
		Credit 8.1	<b>Daylight and Views</b> - Daylight	1
		Credit 8.2	<b>Daylight and Views</b> - Views	1

Yes	?	No			
			<b>Innovation in Design</b>		
			<b>6 Points</b>		

		Credit 1	<b>Innovation in Design</b>	<b>1 to 5</b>
			Innovation or Exemplary Performance	1
			Innovation or Exemplary Performance	1
			Innovation or Exemplary Performance	1
			Innovation - Cradle to Cradle (C2C) Certification	1
			Innovation - Acoustic Performance	1
		Credit 2	<b>LEED® Accredited Professional</b>	1

Yes	?	No			
			<b>Regional Priority</b>		
			<b>4 Points</b>		

		Credit 1	<b>Regional Priority</b>	<b>1 to 4</b>
			Regionally Defined Credit Achieved	1
			Regionally Defined Credit Achieved	1
			Regionally Defined Credit Achieved	1
			Regionally Defined Credit Achieved	1

Yes	?	No			
			<b>PROJECT TOTALS (Certification Estimates)</b>		

**Certified:** 40-49 points    **Silver:** 50-59 points    **Gold:** 60-69 points    **Platinum:** 80+ points