


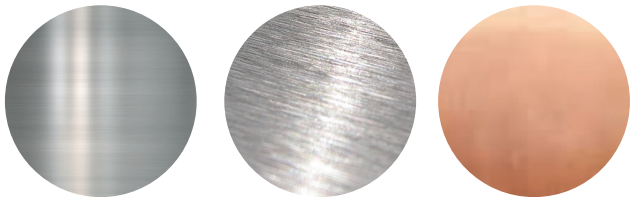


METAL

<div>Tetra</div> <div>Reconfigurable steel sculpture</div>	
<div>Tri-Chord Steel</div> <div>Thermally-efficient steel framing system</div>	
<div>Moveable Walls</div> <div>Pre-assembled, moveable, full-height partitions</div>	
<div>TingWall</div> <div>Leak-free glazing system</div>	
<div>TiColor</div> <div>Electrolytic method for coloring titanium and titanium alloys</div>	

Metals used in building construction:

- Aluminum
- Carbon Steel
- Stainless Steel
- Iron
- Copper



Selection Criteria

- ENERGY STAR label
- High recycled content
- High reflective and emittance values
- Heat-deflecting finishes
- Locally sourced

Benefits to building with metals:

- cost and energy effective roofing
- long lifetime, extremely durable
- 100% recyclable (closed-loop recycling)

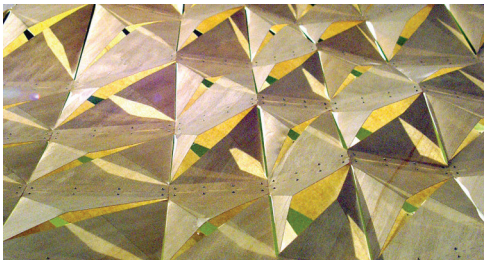
Organizations (for futher research)

- Steel Recycling Institute (SRI)
- Environmental Protection Agency (EPA)
- National Institute of Building Sciences (NIBS)

WOOD

In-Out Curtain

Configurable wood veneer curtain



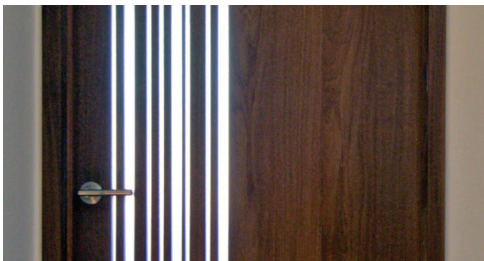
Kirei Board

Sorghum-based architectural millwork material



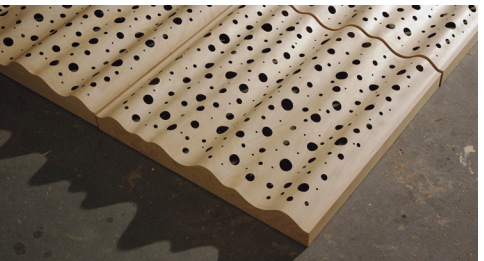
Luminate

Fused wood and translucent acrylic



Ply

Undulating plywood surface




Wood.e


Electrified preformed wood



Selection Criteria

Sourced from **certified forests**






- Forest Stewardship Council (FSC)
- Sustainable Forestry Initiative (SFI)
- American Tree Farm System


ALTERNATIVES

Reclaimed from




- demolition sites/landfills
- urban/suburban properties
- orchards/farms
- rivers/lakes
- manufacturer byproducts
- lumber mills

Engineered (composite)



- Laminated veneer lumber (LVL)
- Glued Laminated timber (Glulam)
- Cross-Laminated Timber (CLT)
- Oriented Strand Board (OSB)
- Parallel strand Lumber (PSL)
- Wood I-joists and I-beams

**AVOID**

- Toxic finishes/ adhesives
- Imported, exotic hardwoods
- Non-recycleable composites
- wasteful construction practices

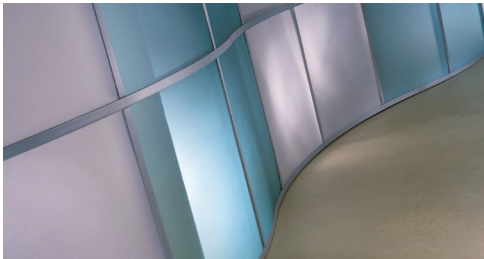
Organizations (for further research)

- Wood Products Council (WPC)
- APA-Engineered Wood Association
- Western Wood Products Association
- Natural Resources Defense Council

PLASTIC

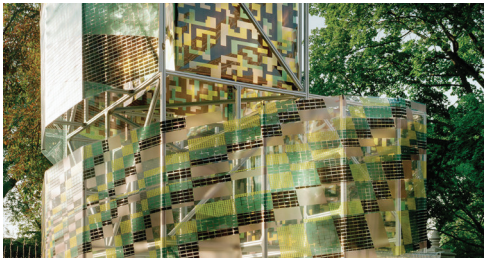
Translucents

Luminous acrylic ceiling panels



SmartWrap

Mass customizable print facade or interior wall material



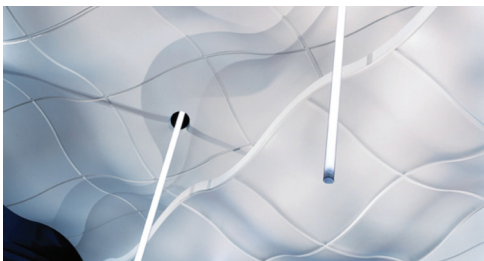
Texlon

Pressure-inflated ETFE foil systems



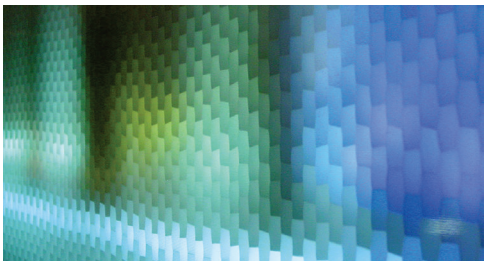
Topo 3D

Curvilinear suspended ceiling system

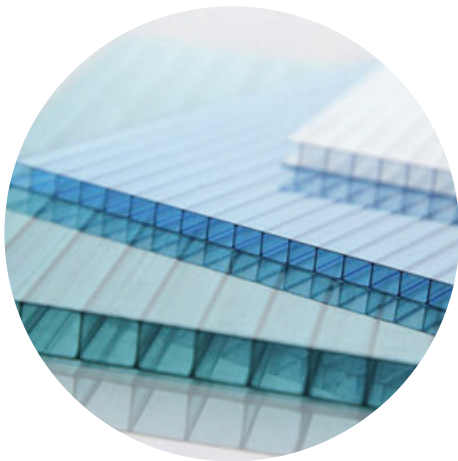


Panelite

Translucent honeycomb panels with laminated fiberglass or cast resin facings



Plastics used in Building Construction:



- Acrylic
- Composites
- Expanded Polystyrene
- Polycarbonate
- Polyethylene
- Polypropylene
- Polyvinyl Chloride

Sustainable plastics:

- are not composed of toxic chemicals
- maximize long-term energy efficiency
- are mostly composed of recycled material
- reduce carbon emissions
- produce little waste and can be recycled

Benefits to building with plastics:

- long lifetime, extremely durable
- offers lightweight structural solutions
- resists corrosion and natural elements
- cost and energy effective
- allows for greater freedom of architectural expression



CONCRETE

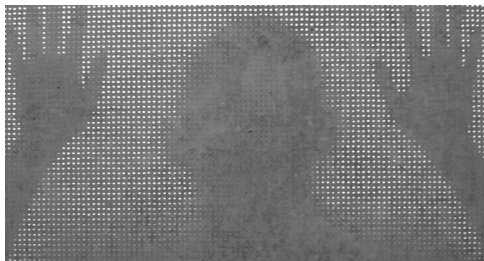
Syndecrete

Recycled content precast concrete
vvsurfacing material



Pixel Panels

Translucent concrete



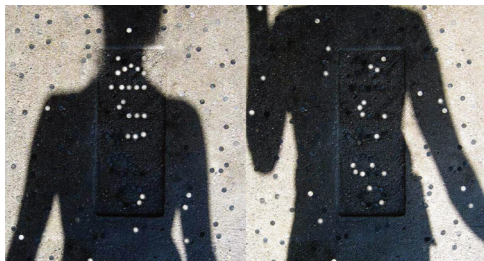
SafeCrete

Autoclaved aerated concrete
blocks and panels



SensiTile Terrazzo

Light reactive concrete



Rastra

Insulated concrete form



Components in concrete



Binder (Cement) + Gravel/ Sand

Sustainable concrete



- lower cement content
 - reduces CO2 from combustion process
 - reduce CO2 from calcination process
- uses biobased binder instead
- uses recycled minerals/gravel
- locally sourced

Benefits to building with concrete:

- long lifetime, extremely durable
- resists corrosion and natural elements
- cost and energy effective (thermal mass)
- allows for greater freedom of architectural expression

GLASS

IceStone

Durable surface material made from recycled glass and cement



Recycled Glass

100% recycled glass



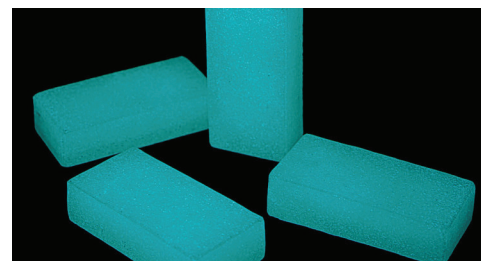
Photovol Glass

Semitransparent photovoltaic glazing panel



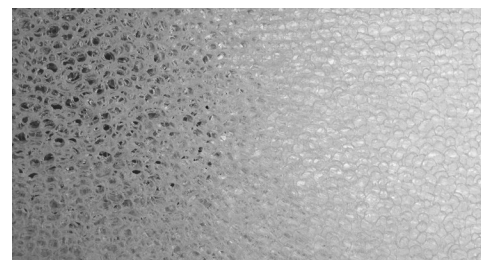
Luna

Phosphorescent cast glass

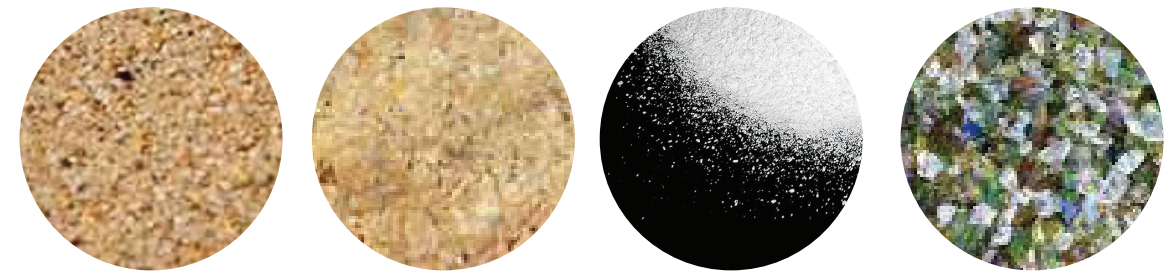


Kapilux

Capillary daylighting glass



Components in glass



sand + limestone + soda ash + recycled glass



Sustainable glass

- uses biobased treatments
- high recycled content
- locally sourced
- certified by third party

Benefits to building with glass

- fully recyclable (closed loop)
- energy efficient: allows for natural light
- easily sourced from abundant materials
- can be used to harvest solar power)