What is LEED?

Your building project shall be certified acc. to the US-American environment standard "LEED" which stands for Leadership in Energy and Environmental Design. In order to ensure the sustainability, an extensive catalogue of requirements during design and execution of the building project has to be kept.
The catalogue is displayed in the following list:

LEED for new Construction and Major Renovation 2009
Project Scorecard (official scorecard in the appendix)

Categories	LEED 2009
• Sustainable sites	max. 26
• Water efficiency	max. 10
• Energy and Atmosphere	max. 35
• Material and Resources	max. 14
• Indoor Air Quality	max. 15
Total Core Points	100
• Innovation Bonus Points	max. 10

Certification Level

Certified level	40 – 49 points
Silver level	50 – 59 points
Gold level	60 – 79 points
Platinum level	80 points and above

What benefits has a LEED certification?

Investor:	Higher market equity
Occupant:	Company ethics / value / image
Operator:	Lower costs of operation

What can we contribute to a successful certification?

Lindner can supply important information on all categories because of already gained experiences from LEED certifications. Lindner can therefore accompany and support architects and planners constructively with the LEED certification.

The Lindner Group occupies all necessary interfaces with standardised processes and lived process instructions for a successful coordination and documentation of all relevant credits. Therefore we can prove all material characteristics according to the LEED requirements.

The preliminary manufacturers/suppliers are involved in the process as not all material characteristics can be specified solely by the manufacturer of the product.

By the integration of an efficient material controlling at an early stage, Lindner is cost-effectively able to give the client a reliable indication about effects of the planned building products which are relevant for the certification in a narrow time frame.

Lindner has refined its products by practical experiences with LEED construction projects and adjusted them acc. to LEED requirements. As a result, these products make an above-average contribution to a successful certification. The calcium sulphate panel of Lindner system floors is for example manufactured from 99 % of recycled material. Lindner contributes with this to the fulfilment of the credit Recycled Content.

In 2009, the Lindner Group prepares an environmental product declaration of all products acc. to environmental criteria in order to guarantee a maximum possible transparency of the material characteristics. This detailed data capture makes a smooth and complete provision of documents for the inspecting authority, the US Green Building Council (USGBC), possible.

With the *material characteristics* of our products, Lindner can influence the following credits of the categories (range of topics) Materials & Resources and Indoor Environmental Quality positively.

Materials & Resources

- Recycled Content
- Regional Materials
- Rapidly Renewable Materials
- Certified Wood

Indoor Environmental Quality

- Indoor Environmental Quality
- IAQ Management Plan during Construction
- IAQ Management Plan before Occupancy
- Low Emitting Mat.: Adhesives & Sealants
- Low Emitting Mat.: Paints & Coatings
- Low Emitting Mat.: Carpet Systems
- Low Emitting Mat.: Composite Wood

Material characteristics of the components

Lindner floor systems

	LIGNA	NORTEC	FLOOR and more®
Carrier panel	Chipboard panel	Calcium sulphate panel	Calcium sulphate panel
Pedestals	x	x	x
Pedestal glue Very low emission	x	x	x
1C floor sealant Very low emission	x	x	x
2C floor sealant Very low emission	optional	optional	optional
Gaskets	x	x	---
Locking glue Solvent-free	x	x	x
FLOOR and more® Installation glue for joint bonding Very low emission	---	---	x
Wall connection tape	x	x	x
Application glue Very low emission	x	x	x
Hot-melt adhesive for edge trim	x	x	---
Aluminium foil, aluminium compound foil	x	x	x
Coverings (linoleum, parquet, …)	On request	On request	On request

X required components
--- not required components

Material characteristics and evidences of the components

- Chipboard panel

  Characteristics:
  - High density chipboard panel
  - Requirements acc. to E1 are kept

  Evidences:
  - E1 certificate (formaldehyde)
  - PCP content certificate (pentachlorphenole)
  - PEFC certificate (sustainable forest management)
  - FSC certificate (sustainable forest management)

- Calcium sulphate panels

  Characteristics:
  - Up to 99% from recycled material (FGD plaster and kraft paper)
  - No harmful emissions
  - Ecologically uncritical
  - Low consumption of natural resources

  Evidences:
  - IBR certificate
  - Certificate emission test

- Pedestal glue very low emission

  Characteristics:
  - Very low emission

  Evidences:
  - Certificate Eurofins (evidence of emission)

- 1C floor sealant

  Characteristics:
  - Solvent-free
  - Very low emission
  - Synthetic resin dispersion

  Evidences:
  - Certificate Eurofins (evidence of emission)

- Locking glue solvent-free

  Characteristics:
  - Solvent-free
  - Very low emission
  - Synthetic resin dispersion

  Evidences:
  - Certificate Eurofins (evidence of emission)

- FLOOR and more® Installation glue for joint bonding very low emission

  Characteristics:
  - Solvent-free
  - Very low emission

  Evidences:
  Certificate Eurofins (evidence of emission)

- Glue for the application of coverings

  Characteristics:
  - Solvent-free
  - Very low emission
  - Dispersion glues

  Evidences:
  - Certificate Eurofins (evidence of emission)

- Aluminium foil

  Characteristics:
  - Vapour barrier
  - Uncritical in view of health and ecology

- Coverings

  Characteristics:
  - E.g. bamboo parquet as a regrowing raw material
    Positive influence of the category Material & Resources

Furthermore, through its fit-out activities, Lindner influences the credits of the categories Sustainable Sites, Energy & Atmosphere and Materials & Resources

Sustainable Sites
- Construction Activity Pollution Prevention

Energy & Atmosphere
- Fundamental & Enhanced Commissioning

Materials & Resources
- Construction Waste Management

Lindner, as an interior fit-out company, can contribute in cooperation with architects and planners in all categories positively to a successful certification due to its innovative products, services and experiences from LEED certifications.

LEED for New Construction and Major Renovation 2009
Project Scorecard

Project Name:
Project Address:

Yes	?	No			
			Sustainable Sites	**26**	**Points**
Y			Prereq 1 **Construction Activity Pollution Prevention**	Required	
			Credit 1 **Site Selection**	1	
			Credit 2 **Development Density & Community Connectivity**	5	
			Credit 3 **Brownfield Redevelopment**	1	
			Credit 4.1 **Alternative Transportation,** Public Transportation Access	6	
			Credit 4.2 **Alternative Transportation,** Bicycle Storage & Changing Rooms	1	
			Credit 4.3 **Alternative Transportation,** Low-Emitting & Fuel-Efficient Vehicles	3	
			Credit 4.4 **Alternative Transportation,** Parking Capacity	2	
			Credit 5.1 **Site Development,** Protect or Restore Habitat	1	
			Credit 5.2 **Site Development,** Maximize Open Space	1	
			Credit 6.1 **Stormwater Design,** Quantity Control	1	
			Credit 6.2 **Stormwater Design,** Quality Control	1	
			Credit 7.1 **Heat Island Effect,** Non-Roof	1	
			Credit 7.2 **Heat Island Effect,** Roof	1	
			Credit 8 **Light Pollution Reduction**	1	
Yes	?	No			
			Water Efficiency	**10**	**Points**
			Prereq 1 **Water Use Reduction,** 20% Reduction	Required	
			Credit 1.1 **Water Efficient Landscaping,** Reduce by 50%	2	
			Credit 1.2 **Water Efficient Landscaping,** No Potable Use or No Irrigation	2	
			Credit 2 **Innovative Wastewater Technologies**	2	
			Credit 3.1 **Water Use Reduction,** 30% Reduction	2	
			Credit 3.2 **Water Use Reduction**, 40% Reduction	2	
Yes	?	No			
			Energy & Atmosphere	**35**	**Points**
Y			Prereq 1 **Fundamental Commissioning of the Building Energy Systems**	Required	
Y			Prereq 2 **Minimum Energy Performance:** 10% New Bldgs or 5% Existing Bldg Renovations	Required	
Y			Prereq 3 **Fundamental Refrigerant Management**	Required	
			Credit 1 **Optimize Energy Performance**	1 to 19	
			12% New Buildings or 8% Existing Building Renovations	1	
			16% New Buildings or 12% Existing Building Renovations	3	
			20% New Buildings or 16% Existing Building Renovations	5	
			24% New Buildings or 20% Existing Building Renovations	7	
			28% New Buildings or 24% Existing Building Renovations	9	
			32% New Buildings or 28% Existing Building Renovations	11	
			36% New Buildings or 32% Existing Building Renovations	13	
			40% New Buildings or 36% Existing Building Renovations	15	
			44% New Buildings or 40% Existing Building Renovations	17	
			48% New Buildings or 44% Existing Building Renovations	19	
			Credit 2 **On-Site Renewable Energy**	1 to 7	
			1% Renewable Energy	1	
			5% Renewable Energy	3	
			9% Renewable Energy	5	
			13% Renewable Energy	7	
			Credit 3 **Enhanced Commissioning**	2	
			Credit 4 **Enhanced Refrigerant Management**	2	
			Credit 5 **Measurement & Verification**	3	
			Credit 6 **Green Power**	2	
Yes	?	No			

Materials & Resources — 14 Points

Y			Prereq 1	**Storage & Collection of Recyclables** — Required
			Credit 1.1	**Building Reuse,** Maintain 75% of Existing Walls, Floors & Roof — 2
			Credit 1.2	**Building Reuse,** Maintain 95% of Existing Walls, Floors & Roof — 1
			Credit 1.3	**Building Reuse,** Maintain 50% of Interior Non-Structural Elements — 1
			Credit 2.1	**Construction Waste Management**, Divert 50% from Disposal — 1
			Credit 2.2	**Construction Waste Management**, Divert 75% from Disposal — 1
			Credit 3.1	**Materials Reuse,** 5% — 1
			Credit 3.2	**Materials Reuse,** 10% — 1
			Credit 4.1	**Recycled Content,** 10% (post-consumer + ½ pre-consumer) — 1
			Credit 4.2	**Recycled Content,** 20% (post-consumer + ½ pre-consumer) — 1
			Credit 5.1	**Regional Materials,** 10% Extracted, Processed & Manufactured Regionally — 1
			Credit 5.2	**Regional Materials,** 20% Extracted, Processed & Manufactured Regionally — 1
			Credit 6	**Rapidly Renewable Materials** — 1
			Credit 7	**Certified Wood** — 1

Yes ? No

Indoor Environmental Quality — 15 Points

Y			Prereq 1	**Minimum IAQ Performance** — Required
Y			Prereq 2	**Environmental Tobacco Smoke (ETS) Control** — Required
			Credit 1	**Outdoor Air Delivery Monitoring** — 1
			Credit 2	**Increased Ventilation** — 1
			Credit 3.1	**Construction IAQ Management Plan,** During Construction — 1
			Credit 3.2	**Construction IAQ Management Plan,** Before Occupancy — 1
			Credit 4.1	**Low-Emitting Materials,** Adhesives & Sealants — 1
			Credit 4.2	**Low-Emitting Materials,** Paints & Coatings — 1
			Credit 4.3	**Low-Emitting Materials,** Flooring Systems — 1
			Credit 4.4	**Low-Emitting Materials,** Composite Wood & Agrifiber Products — 1
			Credit 5	**Indoor Chemical & Pollutant Source Control** — 1
			Credit 6.1	**Controllability of Systems,** Lighting — 1
			Credit 6.2	**Controllability of Systems,** Thermal Comfort — 1
			Credit 7.1	**Thermal Comfort,** Design — 1
			Credit 7.2	**Thermal Comfort,** Verification — 1
			Credit 8.1	**Daylight & Views,** Daylight 75% of Spaces — 1
			Credit 8.2	**Daylight & Views,** Views for 90% of Spaces — 1

Yes ? No

Innovation & Design Process — 6 Points

			Credit 1.1	**Innovation in Design:** Provide Specific Title — 1
			Credit 1.2	**Innovation in Design:** Provide Specific Title — 1
			Credit 1.3	**Innovation in Design:** Provide Specific Title — 1
			Credit 1.4	**Innovation in Design:** Provide Specific Title — 1
			Credit 1.5	**Innovation in Design:** Provide Specific Title — 1
			Credit 2	**LEED® Accredited Professional** — 1

Yes ? No

Regional Bonus Credits — 4 Points

			Credit 1.1	**Region Specific Environmental Priority:** Region Defined — 1
			Credit 1.2	**Region Specific Environmental Priority:** Region Defined — 1
			Credit 1.3	**Region Specific Environmental Priority:** Region Defined — 1
			Credit 1.4	**Region Specific Environmental Priority:** Region Defined — 1

Yes ? No

Project Totals (Certification Estimates) — 110 Points

Not Certified **Certified:** 40-49 points **Silver:** 50-59 points **Gold:** 60-79 points **Platinum:** 80+ points