

KONE AND BREEAM – INTERNATIONAL NEW CONSTRUCTION (NC) 2016

Helping customers to succeed in green building certifications

KONE’s eco-efficient people flow solutions for BREEAM International NC 2016 certified buildings help to combat climate change and contribute to the development of next-generation green buildings. Using our eco-efficiency expertise, we provide in-depth analysis of traffic patterns as well as the energy consumption and potential carbon footprint reduction of our solutions over their entire operational lifespan.

What is BREEAM International NC 2016?

BREEAM (Building Research Establishment Environmental Assessment Method) is an internationally recognized green building rating system. Developed by Building Research Establishment (BRE), BREEAM helps clients manage and mitigate risk through demonstrating sustainability performance during planning, design, construction, operation, or refurbishment.

BREEAM INTERNATIONAL NC 2016 CREDITS

ENE06: Energy efficient transport systems – ONE CREDIT One credit is achieved when all assessment criteria are fulfilled

REQUIREMENTS

- Conduct an analysis of the transport demand for the building to determine the optimum number and size of lifts, escalators and moving walks
- Estimate the energy consumption of the design elevator, escalator and moving walks in accordance with ISO 25745 Energy performance of lifts, escalators and moving walks, comparing the designed solution with another system fitted for purpose
- Consider the use of regenerative drive in case where it produces an energy saving greater than the additional standby energy used to support the drives
- Specify the elevator with the lowest energy consumption

HOW KONE CAN HELP

- KONE can provide a dedicated traffic analysis report using its people flow expertise and tools
- KONE can provide energy-efficiency calculations in accordance with ISO 25745 methodology
- KONE can provide evidence of the potential energy savings enabled by the regenerative drive
- KONE can provide an energy-efficiency report for its solutions.

ENE06: Energy efficient transport systems – TWO CREDITS Once the first credit has been achieved, two further credits can be achieved by fulfilling all the additional criteria for energy-efficient features

LIFTS

REQUIREMENTS

- Adopt standby solutions for example for the lifts car lighting, user displays and ventilation fans
- Adopt car lighting and display lighting providing an average lamp efficacy (across all fittings in the car) of > 55 lamp lumens/circuit watt
- Adopt a drive with variable speed, variable voltage, and variable frequency
- Adopt a regenerative drive

HOW KONE CAN HELP

- KONE can provide technical information for:
- Standby solutions
 - Car lighting lamp efficacy – standby mode
 - Drive
 - Energy saving enabled by the regenerative drive

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ESCALATORS AND MOVING WALKS

REQUIREMENTS

Each escalator or moving walk complies with at least one of the following:

- It is fitted with a load sensing device that synchronizes motor output to passenger demand through a variable speed drive.
- It is fitted with a passenger sensing device for automated operation (auto walk), so the escalator operates in standby mode when there is no passenger demand.

HOW KONE CAN HELP

KONE escalators feature a variety of operational modes, including an automated standby mode for when there is no passenger demand. Standby operation reduces energy consumption and extends the operational lifespan of the equipment.

ADDITIONAL BREEAM INTERNATIONAL NC 2016 CATEGORIES RELEVANT TO KONE

CREDIT	REQUIREMENTS	HOW KONE CAN HELP	
HEA02	Indoor air quality	Materials containing asbestos are prohibited. Listed product types need to meet the emission limits (for formaldehyde, volatile organic compounds and carcinogens), testing and additional requirements.	KONE can support customers in selecting compliant finishing materials for the elevator car and provide evidence that the materials selected comply with technical requirements.
HEA06	Accessibility	Adopt minimum car dimensions to guarantee the accessibility to all types of users, including persons with disability or with reduced mobility.	KONE can deliver an elevator car that fulfills accessibility requirements.
MAT01	Life-cycle impacts	Specify materials with a low environmental impact over the full life cycle.	KONE Environmental Product Declarations (EPDs) provide information about the environmental performance of KONE solutions throughout their life cycle. Third-party verification is available for a limited number of solutions.
MAT03	Responsible sourcing of construction products	All timber and timber-based products used in the project are legally harvested and traded.	KONE can support customers in selecting compliant wood-based finishing materials for the elevator car and provide evidence that the materials selected comply with technical requirements.
MAT05	Designing for durability and resilience	Adopt adequate protection of exposed elements of the building and landscape, therefore minimizing the frequency of replacement and maximizing materials optimization.	KONE can provide materials for the elevator car that meet durability and resilience requirements.
MAN04	Commissioning and handover	Ensure users awareness regarding the 'green features' of their building and how to interface with them.	KONE can provide user guides for its solutions.
WST01	Construction waste management	Reduce waste generation and encourage its diversion from landfill through good design and construction practices.	KONE can fulfill the requirements of the Construction Waste Management plan established for the project. KONE also has its own set of guidelines for waste handling and recycling at installation sites.