LUXALON®

Luxalon® CCA Acoustic+

The new Luxalon® CCA Acoustic+ **ceiling system** from Hunter Douglas **greatly improves acoustic performance** and comfort by applying **concrete core activation**. Based on the Luxalon® 30BD ceiling system, CCA Acoustic+ **has been extensively tested and installed** in a wide range of project applications.

Innovation

HunterDouglas

CEILINGS

Luxalon® CCA Acoustic+

Acoustic comfort in harmony with Concrete core activation

Waterschap Brabantse Delta, The Netherlands - Luxalon® BKA Acoustic+

THE CCA SOLUTION

Concrete core activation (CCA) is enjoying increasing interest among architects, project developers and clients for office and public building application. CCA combines excellent thermal comfort with a considerable saving in energy use.

CCA reaches maximum efficiency if there is no impediment between the concrete structure and the underlying spaces, which results in poor acoustics. Traditional ceilings systems like baffle and ceiling islands offer an acoustic solution, however complete ceiling coverage is not possible. At the high point of an island ceiling, the thermal exchange is greatly impeded creating uncomfortable differences in temperature.

The new Luxalon® CCA Acoustic+ system from Hunter Douglas provides complete ceiling coverage with concrete core activation that delivers optimal acoustic comfort for users. The panel aesthetic creates a smooth, unobtrusive ceiling that can blend with the interior design.

THERMAL ACTIVATION

Independent climate chamber tests have shown that the aluminium use in Luxalon® CCA Acoustic+ panels and carriers are highly suited for thermal cooling and heating as they function as a thermal conductor. In combination with the relative openness of this ceiling system (40% openness with complete ceiling coverage), very positive results can be obtained.

ACOUSTICS

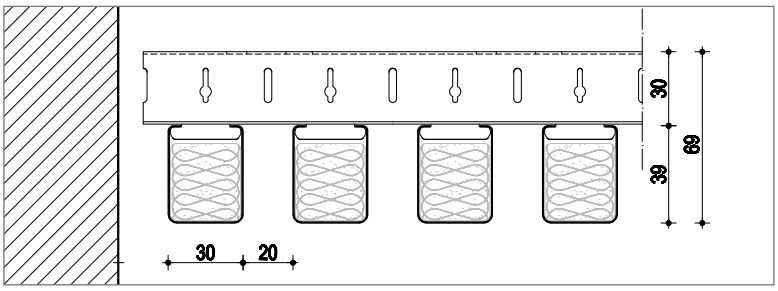
Our extensive experience in acoustic applications with Luxalon® ceiling systems has enabled Hunter Douglas to design an optimised CCA solution. Luxalon® CCA Acoustic+ ceiling panels are finished with special fine mesh that is perforated in combination with acoustic nonwoven fabric and a high-grade sound absorbing filling. This result is an absorption capacity: NRC of 0.65 for an acoustically comfortable working environment.

COMPLETE COVERAGE

The excellent thermal exchange and acoustic performance of Luxalon® CCA Acoustic+ enables 100% acoustical ceiling coverage, creating outstanding acoustic comfort and temperature control at levels that cannot be achieved with island or baffle systems.

CONSTRUCTION DETAILS

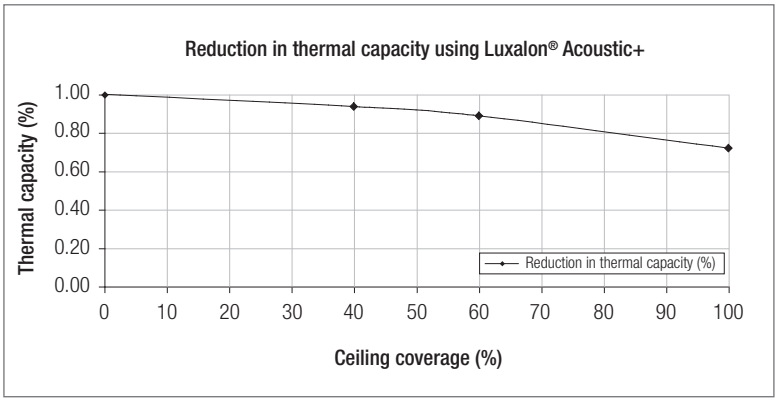
The Luxalon® Acoustic+ panels based on 30BD, are clicked into a universal bearer, which makes integration with other Luxalon® panels with different heights and widths, easy. Integrated lighting can be easily be applied with this solution.



THERMAL CAPACITY

With a ceiling coverage of 60%, the reduction in thermal capacity is only 11%. Complete ceiling coverage (effective coverage of 60% because of the openness of the ceiling) results in a thermal capacity reduction of 28% when compared to a bare CCA ceiling.

During winter the reduction in the thermal capacity compared to a bare CCA ceiling is 6%, based on complete ceiling coverage.

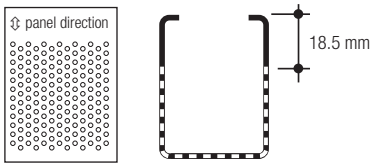


Tested by Peutz; test report no.: B 1164-4E-RA

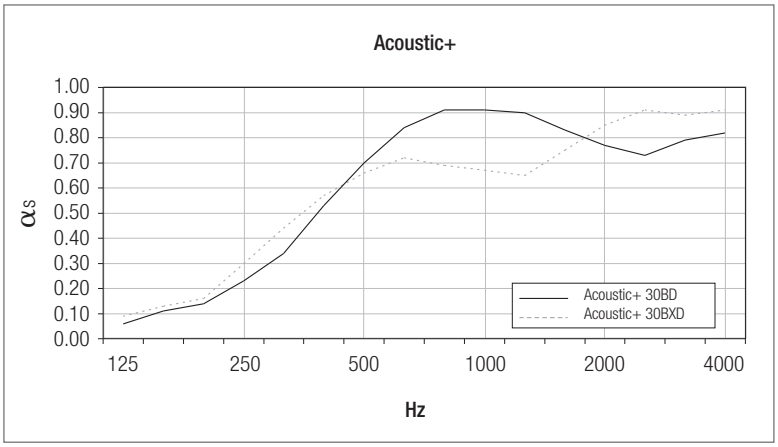
ACOUSTICS

In order to create increased acoustic performance and comfort, Luxalon® Acoustic+ panels are designed with special acoustical properties

- 1 mm perforation (openness 23%)
- Sound absorbing nonwoven fabric over the entire perforated surface
- Sealed sound absorbing filling across the entire length of the strips



Ø 1 mm
⇳ 2 ⇔ 3.48
Openness 23%



Acoustic+	125	250	500	1000	2000	4000	α_w	NRC
30BD	0.06	0.23	0.70	0.91	0.77	0.82	0.55	0.65

The values are based on a plenum height of 70 mm

Tested by Peutz, test report: A 1846-1E-RA

30BXD - PROJECT SOLUTION

For CCA projects where the effective openness needs to be enlarged and the acoustic comfort must be maintained, 30BXD panels provide the ideal ceiling solution. Through the extra height (60 mm) and a 1.5 mm perforation, the panels create a larger sound absorbing surface, so that the openness between the strips can be enlarged. This results in even better thermal exchange and acoustic comfort.

THERMAL EXCHANGE

Summer situation	
Reduction in capacity of CCA with 30BXD	Unit
2.0	$W/m^2.K$
23	%

Tested by Peutz, test report no.: BA 1164-2E-RA

ACOUSTICS

Acoustic+	125	250	500	1000	2000	4000	α_w	NRC
30BXD	0.09	0.30	0.66	0.67	0.85	0.91	0.60	0.65

The values are based on a plenum height of 70 mm. For the graphic reproduction of acoustic values, see curve '30BXD' in the above graph. Tested by Peutz, test report no.: A 2025-2E-RA

KEY FEATURES: LUXALON® CCA ACOUSTIC+:

- Good thermal exchange
- Excellent acoustics
- complete ceiling coverage
- Ceiling is calming and neat
- Positive effect on comfort value
- 100 recyclable product
- made from recycled aluminium
- 30BXD panels available as project solution

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