durlum

EDUCATION ARCHITECTURE

ARCHITECTURE IN EDUCATION WITH DURLUM

Educational institutions such as schools, universities or seminar centres play a central role in our society. They are places of learning, personal further development, communication and physical training. At the same time, they must offer room for breaks and relaxation, in order to maintain attention during the teaching phases.

For many years, durlum has been developing ceiling, light and daylight solutions that create acoustic, visual and safety-relevant conditions for different requirements in educational institutions. As required, they help promote the ability to concentrate or find relaxation. durlum creates solutions that promote well-being.

Photo : Sam Marguardt

◄ **INTEGRATED COMPREHENSIVE SCHOOL STIERSTADT, OBERURSEL [D]**
POLYLAM® VERTICAL BAFFLE SYSTEM AND DUR-SONIC LOW-FREQUENCY ABSORBER

Promoting successful learning

Optimum acoustics and high-quality light support the ability to perform and concentrate of pupils and students. They have a positive effect on physical and psychic well-being, thus contributing to successful learning. This is why good speech intelligibility and uniform, glare-free lighting, which meet the varying requirements of individual, group or classroom teaching, are critical.

durlum ceiling light systems promote optimum hearing and seeing conditions for effective learning, such as the POLYLAM® vertical baffle system with integrated OMEGA lighting channel.
Acoustically effectively designed metal ceilings reduce the reverberation time considerably and can be supplemented by suitable dur-SONIC absorbers for sound absorption in the low-frequency range. Light solutions integrated into the ceiling in conventional or LED design ensure uniform light conditions.


Photo: Heiko Hertel Fotografie

Mastering sports challenges

In modern educational institutions, enough time must also be dedicated to play and fun. Different types of sports and forms of movement contribute to general well-being and promote health. To withstand the high mechanical stress in sports halls, robust, ball-impact-resistant ceiling and lighting solutions are required. The TAIFUN ceiling and lighting systems from durlum have a particular resistant design and have been tested in accordance with current standards for ball-impact resistance and shock resistance and certified to the highest possible level. The rectangular metal panel and expanded metal systems in the TAIFUN version can be designed sound-absorbing, in order to noticeably improve sound quality in sports halls. The matching light solutions have also been tested and certified accordingly.


Photo: Rainer Kaser

◄ **CAFETERIA ROCHE, ROTKREUZ [CH]**
OPEN CEILING SYSTEM LOOP® AND LUMEO® ILLUMINATED SURFACES

RELAXATION

Enjoying rest phases fully relaxed

Between the individual learning and working phases, pupils, students, seminar participants or teaching personnel need a place of rest and relaxation. Since the individual rest phases are often very short, it is all the more important that visual and acoustic effects support the reduction of stress and regeneration, but also promote interaction with friends and colleagues.

Ceiling and lighting systems from durlum help to create an environment that promotes well-being. Acoustically effectively designed metal ceilings, such as the open metal ceiling LOOP®, allow the noise level in common rooms and dining halls to be considerably reduced. Harmonically integrated lights, such as LUMEO® illuminated surfaces, make architectural marks and promote well-being. For the right atmosphere, ceiling and illuminated surfaces can be printed with coloured motifs or textures.

Photo: Peter Bartenbach

Creating the right mood

In auditoria, pupils, students und teaching personnel meet to participate in talks, presentations or events. For the lecturer, it is of particular importance to win the listeners' attention quickly and maintain it. Acoustically and visually optimized rooms promote the flow of information and the listeners' ability to concentrate. Controllable light technology allow different light moods to be set in accordance with the occasion.

Acoustically effectively designed ceiling/light combinations from durlum promote speech intelligibility in large meeting and presentation rooms. Intelligent lighting systems such as the illuminated surface wall PAREA® add visual appeal to interior or underground auditoria. The light simulation similar to daylight increase general well-being and mental receptiveness. When combined with modern, controllable recessed mounted luminaires in LED technology with different light colours, the right mood can be created as required.

Photo: Jörg Sieren

◄ **COMPREHENSIVE SCHOOL HOLWEIDE, COLOGNE [D]**

FS-OMEGA INNOVATIVE CEILING AND LIGHTING SYSTEM WITH INTEGRATED LIGHTING CHANNEL OMEGA 76

FINDING YOUR WAY

Safely reaching your destination

Lobbies, stairs and hallways should be pleasant and welcoming, since they are the reception areas of a building and determine its character. Well-lit they guide pupils or students safely to their seats and ensure their orientation. Since the lighting in hallways usually remains switched-on for long periods, long-lived, energy-efficient light solutions with intelligent presence control should be aimed for. As escape and rescue routes, they must offer protection and are subject to special requirements. durlum ceiling and lighting systems allow individual design of hallways and lobbies and seamless integration of emergency and safety lighting. Rectangular ceiling systems with integrated lighting solutions, such as the OMEGA lighting channel, are suitable for uniform lighting of hallways and are extremely energy-efficient in their LED version. Sound-absorbing dur-F30® fire-resistant metal ceilings moreover guarantee the safety, health and life of visitors in the event of an emergency.

REFERENCES

Grammar school Trudering | Munich [D] 2013
dur-SOLO raft ceiling

Weinhold-Bau TU Chemnitz | Chemnitz [D] 2013
QUADRA® open-cell ceiling

Sportforum Chemnitz | Chemnitz [D] 2013
S7-RHOMBOS TAIFUN ball-impact-resistant expanded metal ceiling, ball-impact-resistant safety guard for the luminaires

Vienna University of Economics and Business | Vienna [AT] 2013
Different LED luminaires in indoor and outdoor areas

School Centre North | Stuttgart [D] 2013
GEO® wide-blade open-ceiling

Roman Catholic School Saint Ursula | Berlin [D] 2012
LUMEO®-R illuminated surfaces, surface-mounted luminaire

Ludwig Hoffmann primary school | Berlin [D] 2012
LUMEO®-R illuminated surfaces, recessed mounted luminaire

High School | Białystok [PL] 2012
OPEN SKY® translucent glass ceiling

Integrated Comprehensive School Stierstadt | Oberursel [D] 2011
POLYLAM® vertical baffle system with dur-SONIC low-frequency absorber

Professional & Vocational College | Aschaffenburg [D] 2011
FS4.2 rectangular ceiling system with OMEGA 76 as functional channel

Martin-Luther-University | Halle-Wittenberg [D] 2010
S1-RHOMBOS extended metal ceiling system with OMEGA 76

FHNW | Windisch [CH] 2009
Illumninated surface wall PAREA® and special recessed mounted luminaires with individual light control

Albert-Ludwig-University | Freiburg i.Br. [D] 2008
LUMEO®-D illuminated surfaces

Atert-Lycée | Redange [LU] 2008
Vertical baffle system POLYLAM®, rectangular metal panels

College of Music | Frankfurt [D] 2007
dur-F30® fire-resistant ceiling

Theodor-Heuss-Gymnasium | Schopfheim [D] 2004
LED façade, rectangular metal panels

Closed metal ceilings
Open metal ceilings
Functional ceilings
Raft ceilings and acoustics
Design ceilings

Project lighting
Interior and exterior lighting
Lighting management

Daylight tubes
Redirection systems
Shading systems

DECKE
LICHT
RAUM

CEILING LIGHTING AMBIENCE

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