

Seat specifications

Venue managers need seating to handle a range of lifecycle wear issues without incurring high maintenance costs, as **Ian Drury** reports.

In these challenging economic conditions worldwide it's even more important to ensure that specification decisions relating to new and replacement seating are the right ones. Venue managers need to know where to source seats that will withstand the rigours of spectator wear, as well as surviving weather conditions in outdoor installations. All of this, of course, needs to be factored in with seats that provide the best possible experience for the fans while minimising ongoing maintenance costs and providing longevity.

In Europe, the EN 13200 2006 standard for spectator facilities covers issues including seating, fixing, dimensions, performance, corrosion resistance, weathering, strength of materials, durability, thermal resistance and performance testing.

The standard is currently being updated by a committee whose membership includes the British Association of Seating Equipment Suppliers, which has just issued an updated 'Blue Guide' to tiered, telescopic and demountable seating (see panel).

The sun always shines...

In external environments, particularly in regions where the sun is strong, it's important

to ensure that UV inhibitors are used during manufacture to protect 'plastic' (polypropylene) seats against sunlight degradation, as Ferco Seating's MD Michael Burnett has previously explained (SAM, April 2006). Ferco supplied some 60,000 Box seats for Arsenal FC's Emirates stadium, which are made from kilolangley (a measure of sunlight) global sunlight located rated materials for UV resistance properties.

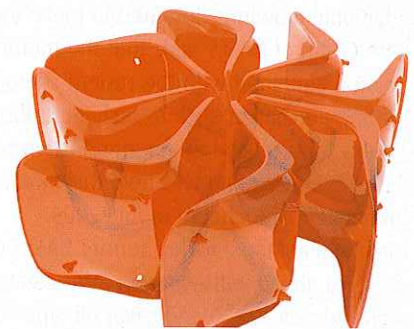
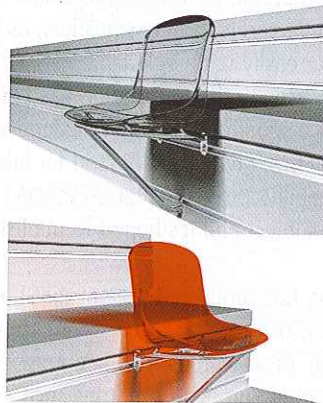
Meanwhile, Spanish manufacturer Daplast, whose installation pedigree includes an impressive record with single shell plastic seating at stadiums such as Seville Betis, has just announced a specially developed seat for Madrid's Magic Box Arena, an indoor/outdoor venue designed by French architect Dominique Perrault. Using a sliding roof, the venue is being used for the Masters tennis series and is a fixture of Madrid's 2016 Olympics bid.

Daplast's Patrick van Gestel explains that for aesthetic reasons the new POP model is transparent, allowing step-located illumination to shine light through it. 18,000 units are being supplied and the company sees further market potential for the model, which is set to join its product range. UV protection for the POP seat is provided via injected retardant additives or stabilisers, while specially designed gaps in the

seat are used for water drainage. "This is an easy to clean seat with a smooth, node-free surface," Patrick explains. "We electrostatically paint the riser mounted steel brackets used to attach the seat to the wall via three fixing points and this form of installation makes it easier to clean under the seat too."

Fundamental choices

For indoor uses, Sandler Seating's range includes portable folding chairs such as its recently launched 904G, a bright chrome tubular unit with upholstered seat and back designed to offer comfort and stability. The company's double-rolled steel chairs feature double tube and channel frames said to offer strength, durability and flexibility, while all of its rolled steel frames are guaranteed for 10 years. "We use the industry standard CHMR contract specification foam, which holds its shape and strength for long-term use in venues such as arenas," comments Sandler's Anita Haslett. "We also ensure our fabrics have passed a 100,000 Martindale rub test to withstand fidgeting" – BS EN ISO 12947 Abrasion Resistance (Martindale Method) is designed to check the durability and suitability of fabrics for various uses.



Daplast has developed a transparent seat that venue designers can use in combination with lighting.

Over at Auditoria Services, Patrick Donoghue points out that with most of the company's seating aimed at indoor applications such as arenas it uses Camira 24/7 fabric, which is guaranteed for 10 years and designed for heavy traffic. "We also use CHMR 50 high density foam and don't include any reconstituted foam because it breaks down over time. Similarly, our seating doesn't use MDF for any structural interior elements because it also tends to fracture during use.

"Instead, depending on the applications involved, our furniture contains top quality birch-faced heavy-duty plywood from sustainable sources. We can also provide ABS plastic backs/mouldings for heavier duty seat use and solid timber, such as beech, birch or oak, for chair arms. For instance, at the Centaur Arena at Cheltenham racecourse we've provided seating with outside backs made of polished plywood timber to provide additional strength."

Auditoria, which is currently readying an exciting new generation range of seating for 2009 launch, recently completed the supply of 900 business seats for the under-cover corporate areas at the outdoor FC Zwolle venue in the Netherlands. Here, the ASL15 seat has been covered in Ambla vinyl, following the successful deployment of this hardwearing material at Amsterdam Arena.

Strength to survive

Craig Wellum of Specialists in Seating, which provides retractable, lecture theatre and auditoria seating, says it's possible to structurally strengthen equipment to withstand wear and tear. "For instance, the steel understructure of a retractable system can be supplanted to beef up the seat – it's like a car that either flexes as it moves along the road surface or doesn't, because it has sufficient underpinning. We can increase the steel section size to ensure adequate lifespan and you really need to make the correct specification decisions at this manufacture stage because it's very difficult to retrospectively take action once the seat's installed. But once in-situ we recommend an annual maintenance visit to ensure the nuts and bolts are sufficiently tight, the decks of the seating system (the main platform upon which it's fixed to the base) are adjusted correctly etc."

That's a view echoed by Gary Pillinger, Servicing and Spares Manager at Audience Systems, who says regular servicing also helps venues ensure they're fulfilling their health and safety obligations. "The most common cause of damage is not wear and tear, or even vandalism, but operator error – most commonly when platform systems are closed with items left beneath them, debris lying around the

seats, or ancillary items (such as handrails) left in place."

Audience's TX telescopic platform system includes an all steel guidance system to ensure the rows open straight and true, with no jamming, a robust row locking system and cushioned row to row contact to minimise friction, wear and noise. Its upholstered Accolade chair is fitted with plastic panels to the outside to provide 'armour plating' when unoccupied, while its Zenith chair – used at the recently refurbished Wembley Arena – has blow moulded double skinned polyethylene seat and back to which 'onserts' (pads that sit on top) are added for comfort.

Covering all the bases

As we previewed a year ago (SAM, December 2007), the British Association of Seating Equipment Suppliers (BASES) has substantially revised and enlarged its 1991 'blue guide' – the new 'Recommendations for the specification and use of telescopic and other spectator seating' provides advice for architects, schools, theatres, colleges, local authorities, building departments, leisure operators, university managers and others on the best ways to lay out and structure portable, fixed and retractable seating.

Patrick Donoghue, Chairman of the six-member Association, which provides a cross-sectional representation of manufacturers and suppliers in the market, told SAM the updated document's publication (downloadable from www.basesuk.com) was delayed by some six months "because we wanted to get the content just right. The information it contains can be used as a reference tool to ensure compliance with the current regulations and guidelines, without having to plough through pages and pages of regulations.

"As a quick reference handbook it's more specific than the previous 'blue guide' and contains a glossary of terms used by seating manufacturers to help specifiers, as well as additional drawings designed to make topics more easily understandable."

Kate Costin of BASES adds that the momentum of activity the Association has built up is being maintained with the current compilation of a separate fact sheet designed to advise seating purchasers such as architects about disabilities, given the demand for information on this topic following the introduction of the Disability Discrimination Act (DDA). An Association meeting was held this month on the subject and it's hoped to publish as a 'blue guide' addendum in mid-2009.

Meanwhile, Mark Cowley, former BASES Chairman, has confirmed to SAM that he's pressing ahead with work on formulating a new British Standard that would operate alongside EN 13200 and cover all types of seating. Draft wording has been presented to the British Standards Institution CEN committee. Other European countries such as Germany and France already have national standards that run alongside EN 13200.

Fulham earning power



Fulham FC has been adding seating capacity – from 22,000 to 25,500 – to its historic stadium since 2004, when Arena Seating first overlaid a new seating system at the Putney end and installed disabled platforms and VIP boxes in two corners. Bradley Merchant, Project Director at Arena Seating, observes that the club's successful upgrading is the result of a vigorous review conducted each season to determine what can be achieved to improve the ground. The result is thousands of extra seats with considerable earning power. For example, by reorganising the area in front of the famous Craven Cottage – a listed building in one corner – the club's architect opened up space for another 175 premium seats, close to the pitch and alongside the players' tunnel. A similar process after reviewing the first phase of the upgrade, has resulted in better seating for disabled customers and additional capacity. Merchant admits it's not always easy to move through design stage, procurement, fabrication and installation in the short window of June and July. Project planning is vital to fit in with all the other housekeeping duties going on at the ground during the close season.