



Buyer's View: SATRA



Seating Fit for Purpose

Furnishing support

Unusually, this Buyer's View is concerned with an organisation that buys no leather but has always had the interests and requirements of manufacturers using leather and their consumers as the central pillar of its existence. When it was founded some 80 years ago in Kettering, then one of the United Kingdom's shoe and leather clusters, SATRA was almost entirely concerned with footwear testing and research. Today, SATRA Technology Centre has evolved into an international membership organisation serving several consumer product industries – including footwear, apparel, fabric care, safety products and furniture. The centre today employs more than 185 scientists, technologists and support staff at its two sites in Kettering, Northamptonshire. It has more than 1,500 members in 70 countries and is now the largest research organisation of its kind in the world. As well as product evaluation, it offers technical and management consulting, computer systems and information, together with sales of test equipment.

This article provides an insight into how SATRA looks after the interests of consumers, producers and retailers in the extremely important furniture sector.

The furniture industry is a very important consumer sector with a turnover in Europe of about £90 billion (\$150.3 billion), upholstered furniture accounting for some £30 billion (\$50.1 billion) of the total, with around 30% of this being in leather.

The centre's furniture laboratories were expanded in 2000 to improve services to the industry and in March 2003 a further major expansion was announced which will more than double the space and facilities available to the expanding demands of the furniture business.

Head of division, John Shipman, explained that the main function of the furniture technology centre was to provide a complete range of practical services to the furniture industry. These include full evaluation of component materials and complete items of furniture, the latest furniture testing technology, furniture flammability and training courses, and impartial and practical advice on all production, quality and technical issues.

All of these, plus management systems, market information, research and development and consultancy, is designed to make the final furniture product fit for purpose.

For Shipman, this remains true across the whole range of the industry from famous designer names such as Ralph Lauren to flat-packs from MFI. According to him, the retailer is the driving force in the very large and extremely diverse furniture sector that ranges from luxury home products through to office, school, hospital and industrial requirements.

There are some obvious fashion drivers such as Ikea of Sweden and Natuzzi of Italy, as well as Germans, Scandinavians and North Americans who tend to set general

style trends. Then there are the established names in furniture design such as De Sede (see *World Leather* Vol. 15 no.8) and Fritz Hansen. It was stressed, however, that notwithstanding the origin or price points of the furniture, it should always have the primary requirement of fitness for purpose. Shipman has noted a quickening evolution in furniture fashions during his long career in the industry. There has, for example, been a rapid increase in the use of leather in furniture in the last 25 years, both in the home and in the office and contract sectors. This has been further complicated by lifestyle changes, such as the growing habit of eating away from a dining table, often sitting watching TV, and teenagers feeding on the move, using their bedrooms as a cafeteria. This places additional demands on the stain resistance and cleaning performance, especially with the very pale leather colours that are now in fashion. SATRA generally finds that there is woeful lack of product knowledge in the retail and consumer sectors with leather being categorised as a more durable material than in many cases it is.

There is also a conscious effort by some manufacturers and retailers to stimulate a more rapid turnover in furniture – for example, German consumers tend to change their furniture more frequently than those in the UK. This trend is also being noted in the UK as the employment market changes and requires extra mobility and consequently more house moves. Other changes are design trends away from



firm, highly structured styles towards more casual, very cushy and soft pieces. This leads to potential problems, as consumers are not informed that they need to regularly plump up soft cushions to prevent creasing and abrasion of the crease lines.

Softer styles have also been linked to increasing customer complaints about leather furniture showing bagging as the softer, stretchier leathers expand into the less resilient fillings used in the cushions. There is currently no method of predicting which leathers could give rise to such problems, but SATRA is working with companies in all parts of the supply and retailing chains to develop a test method coupled with accurate results, in order to create a suitable specification. This is a typical example of how the centre serves the various industries with which it is connected. It works with the various members of the supply chains to ensure safe products, with help in materials, design and legal requirements. It assists in ensuring reasonable durability of product in order to minimise returns and helps retailers in overcoming technical problems.

The vehicles used for this process are seminars, visits to retailers and manufacturers, accreditation services, development of manufacturing systems and specialist testing facilities. At the end



Softer Seating Style

of 2002, SATRA held a very well attended Leather Upholstery seminar for furniture industry manufacturers, suppliers and retailers. Key subjects included the structure and properties of upholstery leather with a section explaining the important differences between full or corrected grains and finished splits. This is seen as a crucial part of the improvement in the product knowledge of the retail side of the supply chain. Other topics covered were leather upholstery specifications, the different types and their testing and how and when they should be used. The very important areas of flammability testing and restricted substances with explanations of the relevant regulations formed another part of the course. An area of particular interest was the discussion of leather upholstery performance, which also featured a detailed

look at consumers, their rights, their expectations and how and why they make claims. The implications of one of the latest EU directives for the sale of consumer goods, introducing important new consumer rights, were covered in detail.

This Directive states that if the item is faulty then the first choice of remedy for the consumer is a repair or replacement of the goods. Where this is considered disproportionate, or inappropriate, then a reduced price may be offered by the seller or the

contract can be cancelled. There is no right to a full refund. The Directive introduces the 'reversed burden of proof', which means that if the product fails during the first six months of use then it is deemed to have had that fault at the time of delivery – the consumer no longer has to prove this.

In the event of a consumer complaint it is essential to ascertain the cause of the failure: was it a manufacturing fault, a material/component fault, was no fault found, was the fault customer/user related? Or was the item worn out?

In such cases the services of an organisation such as SATRA can often be invaluable in reaching an amicable settlement of a complaint and possibly of greater importance are any recommendations to make changes in manufacturing procedures, materials or components and labelling which can help prevent the occurrence of future difficulties.

Mould – a growing problem

The centre is very familiar with leather through footwear, still one of its core activities. Shipman stressed the growing importance of leather in furniture, especially seen in the large amounts now being imported into Europe from Asia. The long distances between manufacturer and retailer have inevitably resulted in

some particular problems that the centre has been called upon to solve.

One such complaint has been the increasing incidence of mould growth on leather furniture and other articles, such as closed leather uppers, garments and gloves imported from Asia.

The factories may well be state-of-the-art, fully air conditioned with all the latest process-monitoring equipment, so how does the problem arise? The goods may have been stored in a hot humid warehouse on a dockside in Singapore or Hong Kong

Multi-faceted testing





Typical Rub-Off Style

or spent several weeks at temperatures of up to 60°C in a shipping container. In these cases SATRA can offer advice to ensure that transport and storage are correct. Containers can be fitted with electronic bugs to monitor temperature and humidity every half-hour over the whole journey thus identifying problem areas and enabling action to be taken. Advice is also available on the general principles of packaging, not only from its protective

aspects, but also from the point of view of reuse or even as a source of raw material in the manufacturing process.

Outsourcing of manufacturing has resulted in an increase in Kettering's off-site and overseas activities; visits are regularly made to manufacturers to advise on topics such as the scaling up of processes from trial to bulk, the setting of appropriate specifications, and in specialist areas such as sewing. The sewing process is an essential

part of the manufacture of upholstered furniture, and the stitching of leather places extra demands on the machinery and operators as it is less forgiving on the use of blunt needles. One sewing aid is VisionStitch, SATRA's computerised stitching improvement system, which is an integrated training and monitoring system designed to quickly train new operators to reach production level performance. It also improves the techniques of experienced operators and maximises the potential from sewing machines through improved machine settings.

Regular contact with consumers, retailers and manufacturers has put the organisation in a unique position to assess the strong and weak points of a wide range of products including leather furniture. The best features of leather were said to be its soft feel, tactile properties and luxurious image, but the differences between the various leather types were not well understood by consumers and retailers. Leather's weaknesses were finish failures and soiling resistance. Interestingly, the single largest number of finishing



complaints related to a very specific leather type of deep button, antiqued rub-off furniture, which is possibly now being replaced by the softer plushier styles. Most of the complaints are on rub-off leather that has not been adequately sealed or are due to the consumer's use of hair care products which have caused the top contrast coat to be removed.

Another source of complaint has been poor finish adhesion, where finished splits have been employed in unsuitable areas thus resulting in a product with poor performance and consequent lack of fitness for purpose. This is very often due to the manufacturer's ignorance of leather's properties, possibly compounded by little or no interest from the product supplier as to the intended end use of the product.

Specifications such as BS6608 can help in finding the most suitable leather but the draft specification, PrEN13336, now under discussion, should result in a useful guide for the selection of leather for upholstery purposes. This specification plus SATRA Fitness for Purpose guidelines can be of great help in reducing the incidence of

using the wrong leather for the purpose. It all comes down to education and possibly one of the most successful types of specification is the in-house specification, where the end use, customer expectation and risk assessment have all been



Bed Testing

thoroughly evaluated and agreed by all parties involved. SATRA is typically involved as third parties in the setting up and testing of in-house specifications.

Its furniture technology centre is not only concerned with upholstered furniture, it covers the complete range from kitchen, bedroom, bathroom, garden and contract furniture.

This places ever-changing demands on its resources, as the furniture products themselves constantly evolve and consumer awareness and expectations grow. Shipman detailed some of the specialist areas where the organisation has been helping furniture manufacturers and retailers. These include the use of glass in furniture, Eco-labelling, specialist information on legislation, work on seating comfort, effects of humidity and help for importers. The new investment to double the size of the furniture centre's facilities is recognition of the importance of the industry, which has provided the centre with one of its fastest growing areas in recent years. It looks well equipped and fully able to continue its service to the industry into the exciting times of the 21st century. ●