

Wimbledon School of Art Sponsorship

Bentley Chemicals has sponsored a new workshop at the Wimbledon School of Art, one of the country's best facilities for education in specialist art and theatrical design.

The £5,000 sponsorship of the Bentley Workshop will help to support the teaching of students studying applications that use liquid resins and elastomers in the special effects and specialised moulding industries. The Company also announced "The Bentley Chemicals Annual Award" which will be given for outstanding technical achievement with the winning student receiving technical training in the United States as well as visiting MGM and other film studios.

Bentley has been supplying the School with materials for some time and the sponsorship provided an opportunity to further develop the partnership. David Burrows, Principal Lecturer at Wimbledon School of Art commented, "Bentley Chemicals offer a range of products and technical support that are absolutely central to many of our courses and their related activities. We are delighted with the sponsorship of our new workshop and the annual award and look forward to a long term association which will continue to directly benefit all parties."

"World's Fastest Mixer" arrives in the U.K.

Bentley Chemicals has introduced a revolutionary new mixer into the UK called 'The Squirrel Mixer.' Described as 'the world's fastest mixer', this unique tool mixes paints, adhesives, grouts, wood treatments, plaster and textured coatings in a fraction of the time taken by other mixers, saving hours of preparation time. Designed for the professional and the enthusiast, the mixer fits all variable speed power drills and comes in a range of

sizes to suit a wide variety of can and container sizes.



The Squirrel Mixer.

New Elastomer for Rapid Prototyping

Bentley Chemicals has unveiled a new and innovative elastomer, which is set to have a major impact on the rapid prototyping industry. Rhodorsil RTV 3040 combines very low viscosity with outstanding transparency, making it particularly effective for complex, detailed prototyping projects.

As UK distributor of Rhodorsil RTV-2 silicone elastomers, Bentley Chemicals is heralding the new product as one of the most important additions to its range. The new product is one of the most flowable grades of prototyping silicone elastomers available, giving fast and easy processing. The low mixed viscosity of 30,000 mPas enables it to flow quickly into

the most complex and detailed pattern. A pot life of 90 minutes further enables the silicone to reach the most intricate detail and processing times can be accelerated or decelerated with additives or variations of temperature.

The crystal clear transparency of this highly fluid moulding silicone greatly assists in producing multi-part moulds that require accurate cut lines and with a Shore "A" hardness of 40, RTV 3040 has exceptional mechanical properties and excellent resistance to polyurethane's, epoxies and polyesters. A high release (self-bleeding) version is also available under product reference RTV 3040SB.

Border Fine Arts

Border Fine Arts has been at the forefront of high quality figurine production since 1974 and has been supplied with prototyping materials, silicone rubbers, and production moulding



A detail from 'Hay Baling'.

materials by Bentley Chemicals for over 20 years.

From concept to drawing, from sculpting to moulding, and from painting to finishing, every one of their classic figurines is entirely hand-crafted by artists based at the company's studios at Langholm in Scotland - a painstaking process that is quite rightly appreciated world-wide.

Each piece is subject to lengthy pre-production processes to ensure that all the original minute attention to detail has been captured before production can take place with one of the company's international manufacturing partners.

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Successful Solutions

From helping to clothe the largest animatronic dinosaur ever constructed, through to supplying a new elastomer with outstanding transparency properties for the rapid prototyping industry, Bentley Chemicals is continuing to build on its reputation as a specialist supplier of creative solutions.

There are two key factors that are continuing to drive Bentley Chemical's growth - the Company's unrivalled range of products for the specialised mouldings and special effects industries and its ability to provide creative solutions for a wide variety of applications. "We are continually breaking new ground, driven forward by



Rhodorsil RTV 3040 a new elastomer with very low viscosity and outstanding transparency for rapid prototyping (see story on back page).

the quality of our products and our growing reputation as specialists," commented managing director Richard Watson, "a lot of applications that we are seeing are new but we increasingly find that customers are naturally turning to us to provide the solutions for them."

As suppliers of silicones, polyurethanes, polyester resins and specialised chemical products, the Company has become established as a market leader. With over 50 years of technical experience and a number of continual research and development programmes, it's Bentley's ability to provide a total service package for its clients that has helped consolidate its success.

World's Largest Robotic Dinosaur

The world's largest animatronic, fully pneumatic T-Rex has been unveiled at Combe Martin Wildlife & Dinosaur Park in North Devon. The dinosaur is seven metres high by fifteen metres long and comes complete with life like sounds. The star attraction at Combe Martin was made by Barnstaple experts Nimba Creations using the latest animatronics technology and hundreds of

kilos of silicone and polyurethane rubber and plastics supplied by Bentley Chemicals.

The project to build T-Rex took some eight months to complete and presented a number of challenges for Bentley. The main priority was to achieve the right cure, colour and flexibility for the polyurethane skin, while at the same time ensuring that it was not too heavy and



T Rex at Combe Martin.

could operate freely as a robotic construction.

Combe Martin also plays host to a number of life-size dinosaurs from the Triassic, Jurassic and Cretaceous periods and Bob Butcher, founder of the park, believes that they are now well on the way to producing the 'Greatest Dinosaur Show on Earth' and is hoping to make it as entertaining as watching a Jurassic Park movie!



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Special Effects Specialists

From Harry Potter to Holby City, Bentley Chemicals has carved out a niche for itself as the Company that the special effects experts turn to when faced with daunting challenges. It has supplied materials to more than 100 films, as well as numerous television commercials and dramas, and many theatre productions. Special effects are an increasingly important part of the business working with companies such as Paramount, DW Productions, Eon Productions, MGM, Warner Brothers, Disney and the Jim Henson Organisation.

The very first special effects challenge that the Company ever tackled was to produce a glass of pink champagne, complete with bubbles, for a Pink Floyd pop video. Since

then, Bentley's silicone elastomers, rubbers, polyurethanes, polyester resins and foams have helped bring to life the visions of Spielberg, Ridley Scott and Cubby Broccoli.

The seemingly endless appetite for blood and guts has proved a lucrative source of business for Bentley. The opening scenes at the beginning of Saving Private Ryan featured many Bentley materials – wounds, severed heads and legs and a variety of assorted entrails, as did Spielberg's Band of Brothers on TV. Most of the weapons, armoury and gore in Gladiator were also sourced by Bentley.

On the gentler side, the Company has recently worked on Harry Potter providing materials for



Managing Director Richard Watson and Sales & Marketing Director Peter Turnock with some recent special effects items.

assorted goblins and trolls as well as for Fluffy the three headed mastiff. Special effects in the last four Bond films have included exploding docks and rocket launchers and of course, Bond's trusty Walther PPK (it's not real!).

Current productions that the Company is working on include the latest Bond film "Die Another Day" which features a large amount of Bentley's special effects materials, and Harry Potter 2.

Rising Success

A forty-five foot long animatronic whale has surfaced as another success in Bentley Chemical's long track record of providing solutions to special effects challenges. The whale had to be 'clothed' in the right skin - all ten tonnes of it!

The project was a pioneering technical achievement. The story began in the summer of 2000 when the Company was approached by Animated Extras to discuss the development of an animatronic whale for the film 'Ocean Warrior' which was beginning production in Amsterdam. The forty-five foot long creation was a



The 45ft animatronic whale.

collaboration with Mill Film who designed and built the chassis, animatronics, buoyancy and control systems required to enable it to swim. It was essential that it met the necessary

performance criteria and at the same time looked cosmetically accurate. The whale was eventually completed after five months of pioneering special effects work and the Company has

gone on to provide the materials for a whole host of other marine animals in the same production including salmon, tuna, turtles, sharks and other submarine whales.

Monumental Achievements

A sculpture that is the largest water-clear, polyurethane resin cast ever made was unveiled in the summer of 2001 as the third and final contemporary work of art to occupy the 'empty' fourth plinth in Trafalgar Square. 'Monument' is made from a specially developed new resin and is the result of pioneering teamwork between the

artist, the fabricators and Bentley Chemicals.

The sculpture presented a series of major technical hurdles. Peter Turnock, sales and marketing director commented "We had to find a particularly low exothermic water clear resin with a slow cure and we had to avoid distortion and discolouring. On a single pour of this volume

we were in uncharted territory."

The company worked closely with Smooth-On, their principle suppliers of rigid urethane casting resins, in a programme of intense research and development. After a period of some four months the team had developed a new resin called Crystal Clear 207

that successfully met all the demanding technical criteria.

'Monument' is approximately five metres, by five metres, by two and a half metres and weighs 11.3 tonnes. Standing on its plinth in Trafalgar Square, artist Rachel Whiteread described it as "a pause - a quiet moment for the space."



"Monument" in Trafalgar Square.

Handi Foam

Bentley Chemical's new quick cure polyurethane foam 'Handi Foam' is producing savings in work carried out in housing repairs, renovations and upgrades. A regional Housing Association in the Midlands, which had previously been using aerosol foams, has been using the two-part foam for the last nine months for general

maintenance and repairs and has seen savings in both time and labour costs. "Using Handi Foam is proving economical - repairs and renovations which previously would have required two visits are now completed in one go," commented Roger Packman, supervisor with Wyre Forest Housing Association, "because the foam cures so quickly it can

be trimmed, sanded and painted within minutes and our operators love it, they find it quick, clean and easy to use."

As well as applications in building restoration, renovation and repairs, the foam's excellent insulation, sound deadening and buoyancy properties also make it ideal for use across a wide variety of industries including roofing, construction, insulation, cold storage, vehicle refrigeration and marine

work. The foam is also fire retardant to European B2 certification.



Handi Foam being used by Wyre Forest Housing Association for general doorway repair.