

HENNECKE PRESS RELEASE

PUR-CSM in top for(u)m

The PUR-CSM spray technology allows users and designers to tap previously unrecognised market potential. At a forum entitled 'In dialogue on efficient technology', held between 6 - 9 November 2006, Hennecke discussed with its customers how this can be achieved.

Under the term PUR-CSM Hennecke GmbH, polyurethane processing specialist and a 100 percent subsidiary of Bayer MaterialScience AG, offers a variety of tried and tested spraying techniques. PUR-CSM is derived from the term **C**omposite for fibre-reinforced mouldings or products made from filled polyurethane systems and **S**pray **M**oulding as the core element of the processing technology.

PUR-CSM enables producers to manufacture glass- or natural fibre-reinforced PU products, including sandwich structures, which are lightweight and at the same time featuring high load-bearing capacity. Apart from that, the PUR-CSM method can be used for the fabrication of acoustic parts with specific noise-absorbing properties, to name only a few examples.

At present, PUR-CSM spraying techniques are successfully used mainly in the automotive and sanitaryware industries. However, designers working in other segments - such as furniture, construction, leisure and sports - show increasing interest in this innovative technology as well, thanks to its unique flexibility and high component quality.



PUR-CSM spraying process
Photo: Hennecke GmbH

There is no application *par excellence*. The possibilities to apply the PUR-CSM spraying variants - also, and above all, to open up new market potential and fields of use - are as diverse as the demands placed on the products.

In order to demonstrate the opportunities and possibilities offered by the PUR-CSM spray technology both in theory and in practice and to make room for constructive dialogue, Hennecke organised a technical Forum on this subject for existing and potential customers as well as for the trade press which was held at its premises in Sankt Augustin near Bonn at the beginning of November.

These four one-day events were aimed at international participants. The large number of attendees at the forum reflected the interest and need for discussion about the universal areas of application of PUR-CSM.

On the agenda was a block of presentations including four technical papers. On this occasion the guests learned everything about PUR-CSM: They were given an introduction to the PUR-CSM technology and the new PUR-CSM Center established in March 2006 (Hennecke) and received information about PU systems, their properties and their use in automotive and non-automotive applications (Bayer MaterialScience AG).

During a subsequent live demonstration of the new PUR-CSM Center the participants could experience the high spray quality and material efficiency achieved when producing with the CSM spraying technique.



Photo: Hennecke GmbH

The demonstration showed the fabrication of an automotive trim component with a sandwich structure and a closed, foil-laminated and flexible surface. To this end, three tried and tested CSM spraying techniques were combined in one moulding: PUR-CSM semi-product processing (sandwich structure) + processing of the PU system Baytec® Reactive (haptic layer) + chopped fibre technique (local spray application for reinforcement). Great interest was also expressed in the spraying of an acrylic bathtub

underside with the PUR-CSM chopped fibre variant for open-mould processing of the PU system Multitec®.

The attendees were especially impressed by the fact that the different CSM variants can be combined as desired using one and the same spray technology for the entire process. For the producers, this translates into maximum flexibility:

Use of various spray technologies in one production system. Adaptation of existing processing equipment to a different spray application at the end of a product's lifecycle. Combination of various CSM variants in one component, thus opening up entirely new material properties and applications.



Photo: Hennecke GmbH

This is possible because the PUR-CSM technology is based on one and the same spray concept.

Another unique advantage of the Hennecke CSM spray technology is the self-cleaning feature of the spray nozzle. The self-cleaning mechanism eliminates the need for cleaning between shots and thus ensures a robust and reproducible production process as well as elevated plant efficiency.

The Hennecke PUR-CSM spray technology originated ten years ago. Since then, and until today, it has been constantly developed, leading to the current market success which was confirmed by the Forum participants and guests during the joint lunch and the subsequent discussion meetings. With the variability of the plant technology and the PU systems available today, there is no doubt that PUR-CSM has a successful future ahead of it.

For further information, please contact:

Thomas Kirsten
Marketing Communication Manager
Tel. + 49 2241 339-297
Fax. + 49 2241 339-974
Email: thomas.kirsten.tk@hennecke.com

D – 53754 Sankt Augustin

Hennecke 
Polyurethane Technology

Hennecke GmbH
Polyurethane Technology
Birlinghovener Str. 30

A  Bayer MaterialScience Company

**Stephan Gottschaller,
Managing Partner, PUR-Form GmbH, Burghausen**

"In my opinion, the PUR-CSM equipment presented at this Forum is the best available on the market. I also liked the technical papers which were presented.

We are a medium-sized company which mainly produces moulded parts, including for the automotive industry. All manufacturing at our facilities is carried out exclusively using Hennecke machines and equipment. We have enjoyed good personal relations with Hennecke for many years and appreciate above all the comprehensive support, from the joint development process and the quality of the production line through to the service provided.

We are particularly interested in the CSM spray technology because of its versatility and flexibility, allowing us to quickly respond to new customer needs and market requirements. In practice, we have been working on a joint development project together with a European OEM for one year, with the aim of manufacturing an underrun protection system using the PUR-CSM Multitec® process."

**Ulrich Krämer,
Managing Director, DECS Kunststoff- und Gerätetechnik GmbH, Sömmerda**

"Since our company has been successfully employing a CSM spraying variant for more than a year, I am constantly in contact with Hennecke.

What especially impressed me today is the current state of development of the PUR-CSM spray technology, which has advanced considerably since its inception. The fabrication of sprayed heavy layers and the processing of filled PU systems as well as the possibility to combine the different PUR-CSM variants opens up entirely new potential applications.

I consider the Hennecke high-pressure CSM spray system with its finely tuned spraying variants simply the best on the market. And I do not hesitate to recommend this technology to all users who visit our company to examine the performance of our PUR-CSM Multitec® plant on site.

In the future, it will be especially important to raise the level of awareness of the PUR-CSM spray technology even further."

Jörn Welsch,
Managing Partner, AKTec Automobil- und Kunststoff-Technik GmbH,
Hörselberg

"Our company produces interior and exterior parts for the automotive industry, both as large and small series, e.g. for accessories.

We will expand our capacity by a PUR-CSM Multitec® plant in the near future and are currently in a concrete planning stage. This technology will enable us to cover an even broader range of applications while at the same time utilizing the existing potential of our machinery.

The Hennecke CSM spray technology is also especially interesting to us because the different spraying variants can be combined with each other and both the plant technology and the raw material systems have developed in a very positive way over the years.

What we appreciate most about the cooperation with Hennecke is the efficient and personal communication, the rapid support in the event of problems and that all commitments made to the customers are actually delivered."

Dipl.-Ing. Ulrike Hascher,
Development material technology plastics / surfaces,
Dr. Ing. h.c. F. Porsche Aktiengesellschaft, Weissach

"PUR-CSM is a very interesting technology, because on the one hand, it is already being successfully used and, on the other, the end products are characterized by high rigidity while at the same time being lightweight.

The possibility to combine the individual CSM variants is a major advantage, since it allows producers to meet specific requirements such as compliance with internal and external norms, depending on the areas where the PU components are used.

I was very pleased with today's Forum. Both the expert presentations and the technical demonstrations were very interesting."