World of Polyurea

Viva VIP!

For ten years Alexander Voelkel and his company, Voelkel Industrie Produkte (VIP), have been forging a path to success with a polyurea coatings technology. Voelkel has now been partnering with BASF for a year with the aim of securing its goal for lasting quality.

It is not easy to establish a connection between the legendary pleasure dome, the city of Las Vegas, and polyurea coatings. Nevertheless, Alexander Voelkel succeeded not to fritter away his money in the American citadel of fun and games but to happen on a once-in-a-lifetime idea: Ten years ago at the Las Vegas "World of Concrete" trade fair he practically "tripped over polyurea," as he declares with a smile: "While the almost thirty-year old technology was already accepted practice in the United States, that was not the case in Europe and other regions," recalled Voelkel.

Voelkel was initially hard-pressed to understand why, considering that the technology combines many advantageous properties. The sprayed, two-component coating cures very rapidly even in low temperatures and high humidity. At the same time it is very elastic and extremely resistant against mechanical and chemical stress. Its hygienic properties protect food in applications demanding particularly effective and aggressive liquid disinfectants. The coatings are applied in production, refrigeration and storage halls in the beverage and sugar industry, in tanks kept at sea water desalination and potable water treatment installations as well as in water and waste water pipes.

When returning home to Munich, Voelkel soon discovered why potential customers remained reticent. To be sure, the technology was familiar but hadn't succeeded in winning over

customers because processing deficiencies had led to wrong applications, and such news travels quickly. Exact professional processing – that is where he recognized opportunities for his company, Voelkel Industrie Produkte, or VIP for short. Founded by his father in 1983 as a trading company for two-component adhesives, VIP soon began to formulate its own range of adhesives, especially for the automotive sector, and was even producing its own line by the nineties.

Launch in MidEast growth region

Already one year after his Las Vegas visit and following a series of coating tests Voelkel and his VIP team were ready for the debut of their polyurea coatings technology. He selected "The Big Five," the international building and construction fair in Dubai, the largest and most important meeting point for the building industry. "At the booth we made contacts with dealers and processors from the Gulf region, received our first large orders and laid the groundwork for the regional network maintained today," explained Voelkel.

With each order the VIP coatings team enhanced its application technology know-how and gradually built a portfolio. Voelkel noted: "Polyurea is not a product, but a challenging technology that allows us to formulate a wide range of coatings." VIP currently offers about 20 formulations for different coatings systems, but, if needed, individual systems can be formulated and processed as well.

In addition to selecting the suitable polyurea system for the specific coatings job, careful pretreatment of the substrate and the proper equipment setup is a must. Pressure and temperature have to be adjusted to the two-component system because the desired properties will otherwise no be achieved. Since Voelkel does not want to get into the machinery business he established close links with designated manufacturers, who in turn expanded their portfolio by the special machinery required for polyurea processing. The sole exception to this rule is a machine for so-called low-pressure systems which is cur-

Polyurea is an elastomer created by mixing two reactive components: an isocyanate (the A component) and an amine (the B component). Depending on the desired property profile of the finished coating, additives like pigments, defoaming and fire protection agents are also included.

Worldwide VoelkeI Industrie Produkte (VIP), headquartered in Munich, accounted for about EUR 15 million in sales with about 40 employees in 2012. Europe and the MidEast represent about 40% each of the business, Asia the remainder.

BASF develops, manufactures and markets the components necessary for polyurea coatings, including isocyanates as well as a broad palette of amine-based hardeners and chain extenders under the Baxxodur® trademark. Various additives augment the line.

rently being developed. Voelkel explained: "We want to be able to offer a particularly process-friendly system, including machinery, and concurrently involve our customers in polyurea with the aim of opening doors to expanding their established coatings business."

VIP's approach to application is similar to the one used when it comes to machinery. "We have no spray team but advise customers at their place of business and share our expertise," indicated Voelkel. At workshops and training sessions conducted regularly in different regions customers learn how to work with the plastic spray and become familiar at the same time with new systems and applications.

Success based on quality "Made in Germany"

"We concentrate on working with skilled partners qualified to assure the reliably high quality of the finished product," reported Voelkel. "That is what our customers mean by 'Made in Germany' and that is why 'Germany' has now become part of our corporate logo." Based on this claim and the continued growth in demand for components, VIP entered into business with BASF about a year ago. Its Intermediates Operating Division supplies Baxxodur, an important product for formulating polyurea systems marketed by VIP in supplying the particularly challenging market for potable water. "It is very exciting to support such a young, dynamic enterprise," said Thomas Steegmueller who services VIP from his base at BASF Austria. The initial contacts to BASF developed at the time of the first VIP projects in Dubai. "Because BASF is organized globally it is positioned to support VIP's burgeoning growth around the world with high quality products and services," added Steegmueller. In addition to the Middle East the Munich company has developed a number of markets outside Germany in its few years of business in polyurea. VIP has two joint ventures in India and Hong Kong, operates with a subsidiary from Dubai and maintains distributors in other Asian countries. VIP-licensed production is to start in South Africa soon. Moreover VIP is pursuing intensive contacts with potential partners in South and North America.

Voelkel believed that VIP is now in a leading position in polyurea in Europe: "We set ourselves apart from the competition thanks to an application-oriented innovative systems portfolio as well as our expertise in processing. In addition we perform our assignments rapidly and flexibly." Prerequisites for this work are numerous conformity checks, registrations and certifications required for VIP products in certain applications, which means that expensive testing can be dispensed with. Currently VIP is working on a permit for fire protection applications for tunnels especially in Scandinavia.

At the same time Voelkel has another plan for linking a city with polyurea. This time the venue is not quite as exotic as Las Vegas, rather, he has Munich in mind: "We will relocate administration, storage and production at one site rather than three separate venues. So we are even better equipped for the rapid growth."