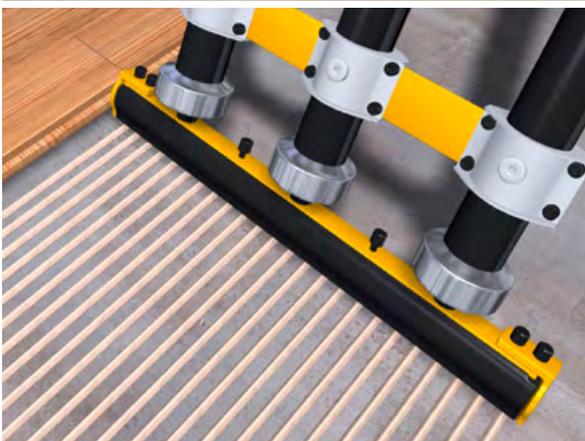


Innovative Approach in Applying Floor Adhesives

Sulzer developed a dispensing solution for Sika AG, Switzerland. The main advantage of Sulzer's solution is that floor adhesives can be applied ergonomically in an upright position. Craftsmen no longer have to kneel, and the overall floor application is up to four times faster.

Traditionally, flooring adhesives were supplied in bulk pails of 15 to 20 kg. These adhesives had to be applied by hand with a spreading trowel, which involved craftsmen working on their knees. Workers who kneel or crouch frequently experience higher rates of knee disorders. This has been verified in several epidemiologic studies that examined the link between squatting or kneeling and musculoskeletal disorders of the knee.

- 1 Applying adhesives in standing position ergonomically.
- 2 SikaBond® 5400 for an application width of 530 mm.



Thinking ergonomically

Sika AG is a company that specializes in products for bonding, sealing, and damping in the building sector and the motor vehicle industry. As a manufacturer of floor adhesives, Sika identified the market advantages of creating an ergonomic product application. Sika, in partnership with Sulzer Mixpac UK Ltd, formerly PC Cox Ltd (see box at the bottom of page 5), collaborated in the development of this new dispensing solution. The goal was to eliminate kneeling during the adhesive application phase of wood flooring installations to protect the health of the workers. The upright and ergonomic application of floor adhesives is a significant step in preventively protecting health. Additionally, the overall time for completing flooring applications is up to four times quicker.

Handling and packaging make the difference

On behalf of Sika, Sulzer developed a dispenser that allows craftsmen to distribute floor adhesive from a standing position (Fig. 1). The speed of application and distribution of the adhesive is up to ten times faster than distributing it manually. For this rapid application, Sika required a high-volume device combined with quick, clean material reloading. It was also important for Sika that the packaging solution for the adhesive have a low environmental impact. The new dispenser system offers a unique selling proposition (USP). Thus, the ability to provide SikaBond® adhesives in a unique packaging size — along with the appropriate dispenser — has enabled Sika to become the market frontrunner in this area.

Improving quality

The dispenser is adjustable, and it allows more uniform application of adhesives than the manual application does. The adjustment of the application rate leads to a higher quality of floor installations. By eliminating the messy hand-spreading of adhesives, the system reduces the possibility of contamination of the newly laid wooden floor.

Removing the empty sachets and reloading the applicator with new ones is simple. Because the applicator head is made of high-density polyethylene material, the adhesive can be left in the dispenser for up to ten days without curing. This reduces daily downtime due to cleaning and maintenance.

The flexible Sulzer solution

Sulzer developed a three-barrel, upright, pneumatically powered dispenser designed for dispensing 63 mm diameter sachets. Each sachet has a volume of 1.8 liters, providing a total capacity of 5.4 liters (7 kg) of adhesive. The 63 mm diameter sachets are a new solution that previously did not exist in the market. Sika, therefore, had the opportunity to produce a unique and environmentally friendly packaging.

The three barrels – side-by-side – allow the adhesives to be applied in a wide dispensing spread for large flooring areas (Fig. 2). The modular system provides the flexibility to produce dispenser variants with two barrels, or one barrel for smaller areas, using the same adhesive sachet. The dispenser development has continued. A battery-powered, cordless technology has now been introduced for this applicator (Fig. 3).

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“We were looking for a tool that would make laying flooring easier and more effective. The commonly used adhesive is now packaged in 1.8-liter sachets, which provide a cost-effective solution while reducing waste. The SikaBond® system has introduced a new and better way of applying floor adhesives.”
Dominik Huber, Corporate Product Engineer at Sika



3 SikaBond® 1800 dispenser used for parquet adhesives.

Model name	Number of barrels	Capacity [liter]	Application width [mm]	Compressor load [bar]	Cordless technology
SikaBond® 5400	3	5.4 l	530 mm	10 bar	No
SikaBond® 3600	2	3.6 l	340 mm	10 bar	No
SikaBond® 1800	1	1.8 l	150 mm	No compressor needed	Available

4 Overview of the three SikaBond® dispenser models developed by Sulzer.



5 Philipp Süess,
 Senior Vice President
 Sulzer Mixpac Systems

Sulzer acquired PC Cox

Sulzer acquired PC Cox Group Ltd headquartered in Newbury, UK, in April 2016. PC Cox, now named Sulzer Mixpac UK Ltd, is a leading manufacturer of handheld sealant and adhesive dispensers. The products, sold under the brand name Cox, are mainly used for industrial and construction applications. Through the complementary acquisition, Sulzer Mixpac Systems (SMS) is now market leader for dispensers for industrial applications. PC Cox’s range of products further strengthens Sulzer’s position as a technology leader and enables it to compete globally as a leading solution provider in the area of mixing, dosing, and application systems.

“Cox immediately makes us the undisputed number one in the global dispenser market,” states Philipp Süess, Senior Vice President Sulzer Mixpac Systems. “Their portfolio includes quality manual, pneumatic, and cordless one- and two-component dispensers for industrial and construction applications. The Cox brand has the history of producing quality handheld dispensers for nearly sixty years and is established around the globe.”