

## Precious metal recovery

### Applying new technology to make improvements for the future.

#### Smopex®

The use of precious metals as catalysts in chemical processes is steadily increasing, in particular the pharmaceutical industry, where catalyst improvements in efficiency and reductions in energy, materials and process steps are critical. The use of these catalysts, however, generates a substantial amount of waste solutions, or streams, of various compositions, which include precious metal.

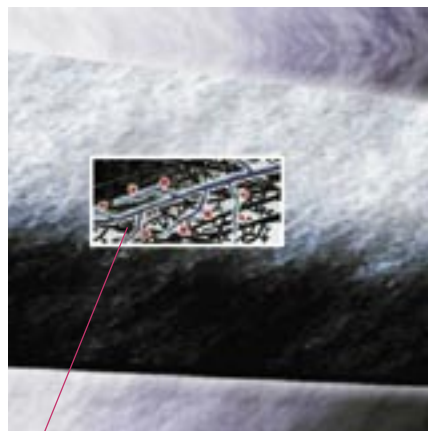
Loss of the catalyst during use or recovery may be hazardous for end users and has a huge impact on the environment. This also affects the overall costs associated with the use of the catalyst, as economical use of the precious metal is based on the efficient recovery of the catalyst itself or by the recovery and refining of the precious metal.

Smopex® scavengers, polyolefin base fibres, which have metal binding properties and chemistry such that metal in the waste solution is attracted to the fibre, are an attractive solution.

Suitable for a wide range of industries, Smopex® achieves excellent recoveries of >95%. The functionalised fibres are robust, easy to handle in the reaction liquor and they enable recovery of the precious metal without interfering with the chemistry of the process itself. Other similar technologies are available, but they are not as successful or user friendly as the new Smopex® fibres.

The fibre can easily be filtered off and the yield of the target product may be increased without the need for additional process steps, making Smopex® a winner all round.

**Diagram showing how Smopex® fibres maximise the metal binding area, increasing the recovery potential.**



Representation of a section through the Smopex® fibre showing the high density of active functional groups in red

