SCHOTT TopPac® – An ideal solution for infusion therapy

In the intensive care environment even seemingly minor errors may cause significant harm to a patient. SCHOTT TopPac® prefillable syringes are designed for optimal fit with syringe pumps and help to prevent medication errors and improve overall patient safety in infusion therapy.

Case Study: Infusion Therapy

In clinical settings such as intensive care units, critical care, emergency rooms and surgery centers, healthcare professionals often rely on infusion therapy. The most common medications administered through syringe pumps are pain medications, anaesthetics and cardiovascular medications. As the majority of these medications have a narrow margin of safety, the delivery of the right drug in the right concentration and right dose is critical. Even seemingly minor errors may cause significant harm to a patient. Current practices often involve transferring drugs from their containers such as ampoules or vials to disposable syringes. Manual filling requires a multi-step preparation process that is prone to human error. The likelihood of medication errors can be dramatically reduced by using prefilled syringes like TopPac®.

Our solution: SCHOTT TopPac® polymer syringes

With over 15 years of experience in polymer syringes, SCHOTT offers healthcare professionals a safer, time and cost saving solution in order to mitigate the potential risks in infusion therapy. The properties shown on the next page ensure that our syringes meet the system requirements.

Syringe system requirements

In order to ensure maximum safety for patients and caregivers the syringe system has to meet the following requirements.

- Minimization of preparation steps
  - Reduce contamination
  - Reduction in preparation time and contamination
- Automated recognition
  - Reduce source for errors
  - Syringe and dose are recognized by the pump
- Optimized injection force
  - Good startup characteristics
  - Optimized siliconization for constant gliding force

If these requirements are met, patients benefit from reliable and safe medication delivery systems. In addition, the cost attributed to drug wastage is reduced. All in all, the benefits of TopPac® syringes reduce the total cost of ownership for pharmaceutical companies and healthcare facilities.

Optimized cost of drug preparation: less medication errors, less contamination, less waste.

Clean Room Production

- Low particles and contamination
  - Fully integrated clean room production allows lower contamination and particle level without washing.
- Glass like transparency
  - The transparency of the COC raw material allows for easy visual inspection on the filling lines.
- Design flexibility
  - The flexible production process allows for a well defined diameter which facilitates automated pump recognition.

Ready for filling

- Easily integrated into existing filling lines with minor modifications.
- High break resistance
  - Luer cone breakage can be avoided due to high break resistance of the COC polymer material.
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