

## Why is PVC used in healthcare?



### Safety

PVC fully complies with safety requirements for professionals and patients in the healthcare environment and has a track record of billions of safe patient days. Due to its versatility and cost efficiency, it enables the mass-production of medical devices and reduced cross-contamination between patients.



### Cost efficiency

PVC combines very low manufacturing and maintenance costs with excellent durability and long-lasting performance. Since the 1960s, PVC has played a huge role in allowing the broader population access to affordable quality healthcare.



### Flexibility and dependability

PVC can be moulded or formed into endless shapes and products such as blood bags, tubing, intravenous bags, and oxygen masks. It can also be relied upon for its strength and durability under changing temperatures and conditions.



### Chemical stability

Materials used in medical applications must be capable of accepting or conveying a variety of liquids without themselves undergoing any significant changes in composition or properties. PVC meets these demands.



### Ease of processing and versatility

PVC can be extruded to make IV tubing, thermoformed to make blister packaging, or blow moulded to make hollow rigid containers. Further, PVC can be easily welded to itself or with other plastics by heated tool welding and vibration welding.



### Sterilisability

PVC medical devices can be easily sterilised using methods such as steam, radiation or ethylene oxide. Vinyl wall and floor coverings are also easy to clean and can resist strong antibacterial agents that are involved in preventing the spread of diseases.



### Biocompatibility

Whenever plastics are in direct contact with the patient's tissue or blood, a high degree of compatibility is essential. PVC is characterised by high biocompatibility, and this can be increased further by appropriate surface modification.



### Clarity and transparency

PVC can be formulated with excellent transparency to allow for continual monitoring of fluid flow. If colour-coded application is needed, virtually any colour can be created.



### Compability

PVC is compatible with virtually all pharmaceutical products in healthcare facilities today. It also has excellent water and chemical resistance, helping to keep solutions sterile.



### Recyclability

PVC is easily recyclable, and since 2014 VinylPlus® has financed recycling schemes for PVC medical devices. In 2021, the collaborative partnership VinylPlus® Med was launched to accelerate sustainability in European healthcare.