



For Prominent Biotech Company, TekniPlex Healthcare's Custom Weldable TPE Tubing Development Helps Reduce Risk & Meet Sustainability Goals



PROBLEM

A prominent biotech company was experiencing significantly longer lead times for its weldable TPE tubing products, as well as for certain assemblies that contain this type of tubing. As the company attempted to expediently validate an alternative product, it confronted difficulties in obtaining information and relevant data concerning the compound used in the tubing. The company approached TekniPlex Healthcare seeking a weldable TPE tube solution equivalent to those currently utilized in its applications.

As the company evaluated the technical requirements for its tubing, it determined that none of the current products on the market met its exact needs. The company desired a product with a low overall extractable profile, as well as assurance that the final product didn't contain certain targeted extractables — such as bis (2,4-di-tert-butylphenyl) phosphate (bDtBPP), a degradant of Irgafos® 168, an additive present in many formulations of thermoplastic materials, and shown to be highly detrimental to cell growth. They required a product that offered low particulate generation during peristaltic pumping.

SOLUTION

TekniPlex Healthcare was able to develop, internally test, and sample several targeted tubing samples for the customer, which then performed internal pump and weld testing. Combining these results with TekniPlex Healthcare's extractable testing, the customer was able to qualify a unique compound that met its specific requirements.

Notably, the solution was flexible and supplier agnostic; upon purchasing this novel compound, the customer could have it extruded at a vendor of their choice, or choose TekniPlex Healthcare to manufacture the tubing in one of its six cleanroom-contained extrusion locations across four continents.



BENEFIT

By acquiring a tubing product that met its precise requirements, the biotech company was able to reduce application risk in certain sensitive process areas. It also was able to reduce supply chain risk, since the solution comprised a customized TPE formulation that could be extruded at a wide variety of locations around the world.

Another customer benefit was reduced lead times and carbon footprint on its life cycle analysis (LCA). This helped the company meet its overall annual sustainability goals.

Finally, as the customer worked closely with TekniPlex Healthcare on this high-risk aspect of its single-use assembly, it was also able to work with the same team to solve an issue with its bioprocess bag supply. While TekniPlex Healthcare was developing the custom tubing product, its materials science team also designed a tailored bioprocess film solution, and provided prototype bags for customer testing.



TekniPlex Healthcare's Custom Weldable TPE Tubing **reduced application and supply chain risk.**

ABOUT TEKNIPLIX HEALTHCARE

TekniPlex Healthcare deploys world-class material science expertise to deliver value in creating products for medical devices, diagnostics, and drug delivery. With a deep understanding of the needs of end-users, our offerings ensure we provide innovative solutions at the point of patient care. For more information about TekniPlex Healthcare and our solutions, visit www.Tekni-Plex.com/healthcare.