

TPEs challenging silicone in hoses

The Italian company Industrie Plastiche Lombarde S.p.A., since 1975 a successful „Made in Italy“ producer of flexible hose solutions, has launched IPL-Pharmaline. According to its strategy focused on the research of niche and profitable markets, with high potential for the future, IPL has developed a range of products using a TPE with the same and even better features than a standard silicone.



Alternative to silicone: TPE hoses for pharmaceutical applications

The first product of the **Pharmaline** series has been **Pharmapress**, a flexible hose with polyester reinforcement, followed by **Pharmasteel**, a version with stainless steel spiral. Now **Pharma-Steelpress** is introduced, a hose that combines reinforcement and spiral to achieve best mechanical performance. The three products have been developed according to USP class VI law for the pharmaceutical industry, FDA regulations (title 21 CFR 177.2600) and 2002/72/CE (classes A, B, C, D including milky products for the food industry).

Compared to silicone the TPE has some important advantages in this application:

It is transparent, which allows to detect immediately possible blockages.
It has superior mechanical properties. It maintains its initial length and therefore has a longer life supporting more stresses.
It is less porous.

Like other hoses used in the pharmaceutical process technology, IPL-Pharmaline can be sterilised in autoclaves (with a temperature of 121 °C), with EtO gas as well as with radiation and chemical solvents. The hoses are odourless, and do not change the organoleptical properties of the delivered materials. They show very good resistance to hydrolysis and microbes, good resistance to mineral oils and chemicals, and excellent resistance to ozone, weathering and ageing. They are halogen-free and conform to RoHS regulations. The Pharmaline hoses can be connected with two different systems, the Safeflex reusable and the Safeflex SRS (Safe Retention System).

IPL-Pharmaline can be used in the transport and suction of pharmaceutical powders, granules, and liquids, with different concentrations and temperatures.

About IPL:

Industrie Plastiche Lombarde S.p.A. is based in Besozzo near Varese, Italy, and is specialised in the production of hoses for different industry sectors. The three core businesses are:

The abrasion sector with light to very heavy versions of polyurethane hoses with more than 3 mm wall thickness and properties like antistatic features. Applications ranging from granules delivery to street cleaning.

The pharma and biotech sector with flexible hoses of high quality raw materials according to USP Class VI, FDA and the European directives for the pharmaceutical and food substances.

The temperature sector with custom-made solutions which can deliver gases and vapours of up to 1,100 °C.

The product range also comprises new connection systems, reusable or crimped fittings for the pharmaceutical industry and the patent pending Safelock for corrugated hoses.

Adresse:

<http://www.gupta-verlag.com/general/news/k-2010/8760/tpes-challenging-silicone-in-hoses>

