

Lifolit[®]

Soft PVC Compounds

soft
PVC

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INTRODUCTION

Lifolit are a family of high-quality, soft polyvinyl chloride (PVC) compounds, custom formulated to your requirements.

PVC is a building block of our daily lives, its versatility and performance benefits make it an ideal choice for a wide variety of applications in the construction, consumer, industrial, toy and automotive markets.

We've been developing PVC compounds since 1965 and continue to engineer new solutions to address current and emerging market demands. As concerns grew over the use of certain plasticizers in PVC compounds, we have developed non phthalate, DEHP free and low VOC compounds.

Our aim is to provide the best material solution for every application; our experts work hand-in-hand with you to develop customised solutions that help your business to grow. Please use this guide as an introduction to the Lifolit range and [contact us](#) to discuss your specific requirements.

KEY PROPERTIES

- Hardness range from 40 Shore A to 60 Shore D
- Free of heavy metals and PAHs
- Food contact grades
- Non phthalate plasticizer
- All compounds are DEHP free
- Good UV resistance and weatherproofing
- Crystal clear, translucent, natural or colour compounded grades
- Foamed grades up to a density of 0.45g/cm^3
- Antistatic and conductive grades available
- Polymer blends
- Easy to process via injection moulding and extrusion

TYPICAL APPLICATIONS

- Footwear
- Toys
- Glazing profiles
- Construction gaskets
- Hoses
- Handles & Grips



TOY FIGURES

These toy figurines are incredibly life-like, lovingly created and beautifully designed products. The manufacturer puts their responsibility to parents and children at the heart of their philosophy and only works with the highest quality materials and suppliers.

We have been a supply partner for a number of years. Our Lifolit PVC compounds are an ideal choice for toy and childcare products, they conform to relevant industry standards and regulations such as EN 71/3. We also select the raw materials we use carefully, implementing strict quality control processes. The raw materials we use comply with EU directive No. 10/2011.

Lifolit PVC compounds are low odour, with low migration levels for improved lacquer adhesion. Varnishing is also possible. The compounds are also easy to process, with fast cycle times resulting in low energy costs during manufacturing.



NON PHTHALATE & DEHP FREE GRADES

To address consumer concerns over the potential health and environmental risks of certain plasticizers used in the manufacture of PVC compounds, we have developed the Lifolit range to include several non phthalate alternatives.

This helps our customers to comply with tightening regulations governing the use of phthalates. Particularly in the toy and childcare market, where non phthalate compounds have become the industry standard in response to directives such as EU 2005/84/EC.

We work with a number of raw materials and plasticizers to give the best performance / cost ratio while always keeping in compliance with the different levels of phthalate use. This includes DEHP free PVC as well as grades that are considered low in Volatile Organic Compounds (VOCs).

SPECIALISED LIFOLIT GRADES

FOAMED PVC

For footwear and shoe sole applications we have developed several grades of foamed Lifolit PVC. They are foamed up to a density of 0.65g/cm³. With extrusion processing densities up to 0.45g/cm³. We also offer grades with no chemical blowing agents which can be processed at temperatures up to 195°C. They also have a very fine cell structure.

PVC BLENDS

By blending nitrile rubber (NBR) or other polymers, such as TPU, we have created PVC compounds with very elastic properties. Our PVC blends also allow us to modify very specific properties such as abrasion and chemical resistance.

ANTISTATIC, CONDUCTIVES & FLAME RETARDANT GRADES

The Lifolit range includes antistatic and conductive PVC grades. Designed to dissipate electrical charges where EMI or static build-up could cause interference. We also offer flame retardant PVC compounds which comply with RoHS regulations.

LIFOLIT TYPICAL GRADES

Lifolit Grade	Hardness Shore A (3 s) ¹	Processing Method	Typical Applications	Key Properties
E 73.1340/2 glasklar	75	Extrusion	Profiles, hoses	Crystal Clear
E 75. 1284/2 glasklar NP	75	Extrusion	Profiles, hoses	Crystal clear, phthalate free
SG 60.0515/1	50	Injection Moulding	Foamed shoe soles	Phthalate free
SG 53.1380/1 HT	50	Injection Moulding	Foamed shoe soles	No chemical blowing agents, high temperatures ²
SG 88.0532/1 natur	85	Injection Moulding	Toys	Conforms to EN 71/3
E 75.0898/1	75	Extrusion/Coextrusion	Coextruded profiles & gaskets	Improved compression set
SG 45.1095/1 NP	45	Injection Moulding	Handles, grips	Soft touch with improved haptics. Phthalate free

¹ Test Method: DIN 53505 (A)

² For temperatures up to 195°C, very fine cell structure

PROCESSING

Lifolit PVC compounds are easy to process via injection moulding, extrusion, blow moulding and deep drawing.

We have engineered flexible PVC compounds with very high flowability, ideal for injection moulding, as well as highly viscous grades for extrusion.

Lifolit PVC compounds result in fast cycling times, meaning low energy costs during manufacture of the final application. Recycling of finished products is also possible.



A Lifolit processing eGuide is available to download from our website

WANT TO LEARN MORE?

Contact us at

lifolit@hexpoltpe.com

or visit

www.hexpoltpe.com/en/lifolit.htm

A few of our other product ranges →

[Dryflex TPE compounds](#)

[Lifocork cork compounds](#)

[Lifobatch coloured and additive masterbatch](#)

ABOUT HEXPOL TPE

HEXPOL TPE is a global compounding group specialising in Thermoplastic Elastomers (TPE) for key industries such as consumer, medical, packaging, automotive and construction. We have a core belief in being the easiest company to do business with. That's why we invest in our operations, teams and technologies to offer our customers the most reliable, relevant and cost-effective TPE compounds, backed by highly responsive support, technical know-how and application expertise. Our teams work together, across boundaries, applying the knowledge, experience and talents we have all around the world to meet the needs of our customers.

LEGACY NAMES: From 2017, the ELASTO and Müller Kunststoffe businesses were renamed to HEXPOL TPE.

All the information about chemical and physical properties consists of values measured in tests on injection moulded test specimens. We provide written and illustrated advice in good faith. This should only be regarded as being advisory and does not absolve the customers from doing their own full-scale tests to determine the suitability of the material for the intended applications. You assume all risk and liability arising from your use of the information and/or use or handling of any product. Figures are indicative and can vary depending on the specific grade selected and the production site. HEXPOL TPE makes no representations, guarantees, or warranties of any kind with respect to the information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. We retain the right to make changes without prior notice. HEXPOL TPE makes no warranties or guarantees, express or implied, respecting suitability of HEXPOL TPE's products for your process or end-use application. Lifolit® is a registered trademark, property of the HEXPOL TPE group of companies.

