KRAIBURG TPE

Oil-resistant TPE

HIPEX®

*CUSTOM-ENGINEERED **TPE** AND MORE*

HIPEX® – a new material class

Advantages with respect to processing of Thermoplastic Elastomers combined with excellent temperature and media resistance: This widespread requirement of customers from the automotive and engineering sectors has been met by KRAIBURG TPE true to our company motto “customer-engineered TPE and more”.

KRAIBURG TPE developed a material with new performance: HIPEX® combines high temperature resistance with outstanding oil resistance. HIPEX® is ideal for use in the cost-effective injection molding process.

There are many potential applications for the new high performance TPE in automobile engine sector

KRAIBURG TPE

Development of a new material class

This material class offers users from the various market sectors definite advantages: good flow properties and cost effective processing due to co-injection molding capabilities.
Since conventional TPE is not resistant to non-polar mediums such as engine oils, gear oils or greases its use in the proximity of engines was very limited. Due to these limitations our research and development team sought a new technology.

The properties: EVM

Our developing experts combined the mechanical properties of basic raw material EVM (ethylene-vinylacetate rubber) with the proven material advantages of thermoplastic elastomers (TPE).

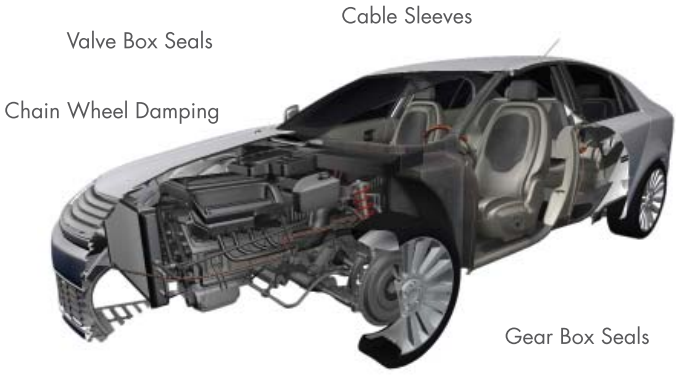
Material properties of EVM:

- Resistant to oxygen, ozone and high temperature
- Long-term use at up to 150 °C
- High elasticity even under load
- Excellent compression set even at high temperatures

The result is a new material class. Temperature and media resistant high-performance compounds open the door to new applications and ensure a safe and efficient production.

The solution: The oil-resistant TPE HIPEX®

With its high-temperature resistance up to 150 °C and simultaneous media resistance to oils and fats, the new HIPEX® product group satisfies all requirements for use under the engine hood.



You can expect:

- Up to 5 times shorter cycles – saves time
- No annealing – saves energy
- Higher degree of automation – saves effort
- No reworking – saves effort
- Lower rejection rates – saves material
- Almost completely recyclable – saves disposal costs and material

HIPEX® is available in black and natural colors. The latter can be dyed and thus offer further advantages in production: For example, natural colors can be injected onto the rigid components, to produce visual contrast on black components. This makes it possible, for instance, to institute automatic visual quality control.

The use: Versatile and flexible

HIPEX® opens up completely new areas of use without requiring you to modify your current production mode. This is because the material can be produced on injection molding machines just like existing thermoplastic materials. The areas of use for high-performance TPE are varied and range from sealing applications in motor vehicle engines, covers and connecting and fastening elements.

Sample applications:

Above: stop buffer rings in transmission system / Below: cylinder end cap sealing

HIPEX® at a glance

- Temperature-resistant up to 150 °C
- Media resistant to engine oils or greases
- Substantially reduced cycle times as compared to cross-linked elastomers
- No annealing
- Good flow properties
- Lighter than elastomers by approx. 15 percent
- Very good compression set
- Waste and rejects can be returned to the production process
- Black and natural colors, coloring possible
- Multi-component injection molding with mechanical anchoring

Contact

KRAIBURG TPE GmbH & Co. KG
E-Mail info@kraiburg-tpe.com
Web www.kraiburg-tpe.com