



Mediprene®

Thermoplastic Elastomers
for Medical Applications

THE MEDIPRENE CONCEPT

Mediprene Thermoplastic Elastomers (TPEs) have been developed by HEXPOL TPE to address the demands of the medical device and pharmaceutical industries. They combine the performance of rubbers with the processing properties of plastics, delivering sophisticated design opportunities through a wide and flexible range of products.

But our Mediprene concept does not start and end with the product, it encompasses how we work. From our dedicated [Mediprene team](#), with specialist knowledge and expertise of the medical market. Through product development, raw-material selection, regulatory compliance, to production controls, traceability, reproducibility and change management.

Our Mediprene concept offers customers highly customisable materials, originating from medical raw materials with high biocompatibility status and compounded under clean conditions. Maximising the probability that their devices will pass relevant medical tests. This is what makes us a trusted and reliable partner for the medical industry.

Please use this guide as an introduction to the Mediprene product family. We also have a comprehensive library of product data, processing and sterilisation information available to download from our website at www.mediprene.com

To discuss your specific requirements, you can contact our medical team at mediprene@hexpolTPE.com

STRICT RAW MATERIAL POLICY

- SEBS/SBS where representative grades have passed USP Class VI
- Medicinal white oil complying with EP & plastic that has passed USP Class VI
- Colour masterbatch made from raw materials that have passed USP Class VI or corresponding parts of ISO 10993

PROVEN BIOCOMPATIBILITY

Representative grades from the Mediprene 500M range have passed :

- ISO 10993-5 (cytotoxicity)
- ISO 10993-10 (intracutaneous reactivity)
- ISO 10993-11 (acute systemic toxicity)
- USP Class VI

CLEAN, CONSISTENT PRODUCTION

- Documented cleaning procedures
- Traceability (raw materials, compounding, properties)
- Reproducibility
- ISO 13485 accreditation

CHANGE CONTROL

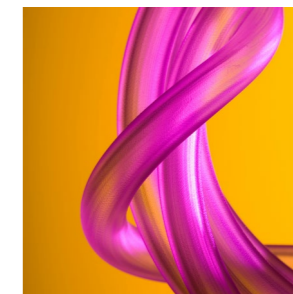
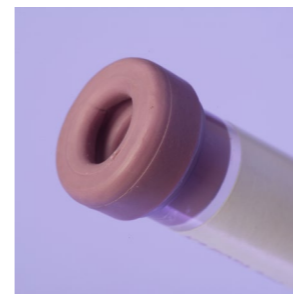
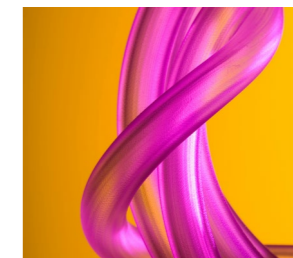
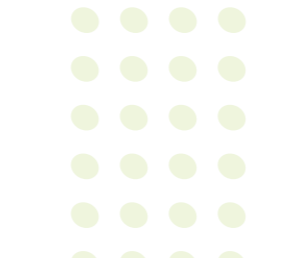
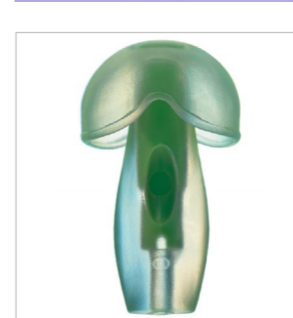
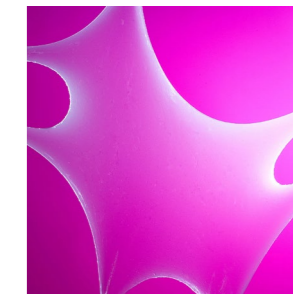
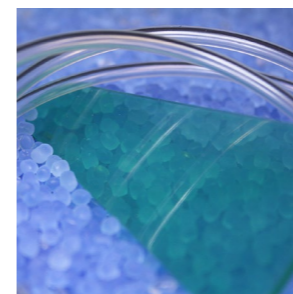
- In case of change or discontinuation of a raw material/compound, we can make a volume corresponding to customer 2-year forecast available (valid for standard range & with exception of Force Majeure situations)

APPLICATIONS

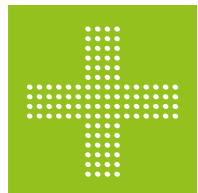
Mediprene TPEs are suitable for a wide variety of uses in the medical device and pharmaceutical markets, with new applications being developed every day.

Typical applications range from tubing to syringe plunger seals, resealable membranes to IV bags, face-masks to urinary catheter connectors, teat droppers to soft-touch grips.

Mediprene TPEs combination of soft-touch aesthetics, functional performance and proven biocompatibility offers design freedom, processing efficiencies, product performance and compliance assurance.



Mediprene® 500M



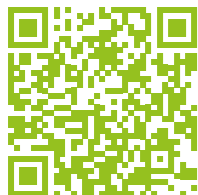
STANDARD TPE SERIES

SPECIAL FEATURES

- Translucent
- Hardness from 0 Shore A to 62 Shore D
- Good compression set
- Adhesion to PP & PE in 2K applications
- Suitable for injection moulding & extrusion

APPLICATION EXAMPLES

- Face masks / airway management
- Resealing membranes / stoppers
- Connectors
- Seals
- Soft-touch haptics
- Patient comfort / wound care



A library of product & processing guides are available to download at www.hexpolTPE.com



TRANSPARENT TPE SERIES

SPECIAL FEATURES

- Transparent & crystal clear grades
- Hardness from 30 to 90 Shore A
- High melt flow
- Adhesion to PP & PE in 2K applications
- Suitable for injection moulding, blow moulding & extrusion

APPLICATION EXAMPLES

- Face masks / airway management
- Functional orthodontics
- Transparent soft-touch haptics



TPE PLUNGER SEAL SERIES

SPECIAL FEATURES

- Translucent or black opaque
- Hardness from 43 to 73 Shore A
- Adhesion to PP & PE in 2K applications
- Suitable for injection moulding

APPLICATIONS

- Plunger seals for single use syringes



Mediprene® OF



OIL-FREE TPE

SPECIAL FEATURES

- Transparent & crystal clear grades
- Hardness from 40 Shore A to 40 Shore D
- Low level of potential leachables & extractables
- Kink resistant
- Adhesion to PP & PE in 2K applications
- Suitable for injection moulding & extrusion

APPLICATION EXAMPLES

- Tubing
- IV set components
- “Stick to skin” with double-layer adhesive tapes
- Transparent soft-touch haptics



Mediprene® A



TPE FOR 2K APPLICATIONS

SPECIAL FEATURES

- Opaque
- Hardness from 35 to 65 Shore A
- Adhesion to substrates such as ABS, PC, PETG & SMMA in 2K applications
- Suitable for injection moulding & extrusion

APPLICATION EXAMPLES

- Seals
- Closures
- Grips & handles
- Soft-touch with engineering plastics

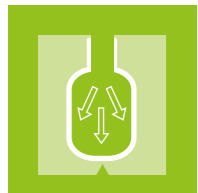


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Mediprene® BM



TPE FOR BLOW MOULDING

SPECIAL FEATURES

- Translucent
- Wide hardness range achievable
- From soft & elastic to rigid & impact resistant
- Adhesion to PP & PE in 2K applications
- Designed for extrusion blow moulding

APPLICATION EXAMPLES

- Bottles
- Balloons
- Bags



Mediprene®



COLOURED TPE

SPECIAL FEATURES

- Only medical grade colour masterbatches made from raw materials that have passed USP Class VI or corresponding parts of ISO 10993 are used
- Transparent or opaque colours can be achieved
- Excellent colour dispersion
- Enhanced appearance & design possibilities
- Brand & product identification



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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.

info@hexpolTPE.com ▪ www.hexpolTPE.com

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

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. 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. Mediprene® is a registered trademark, property of the HEXPOL TPE group of companies.