

mediprene® of

Oil Free

Oil Free Medical TPE Compounds



Mediprene OF series

Oil Free grades for medical applications

Pure and Safe

The Mediprene oil free compounds were developed to address demands for transparent medical thermoplastic elastomer (TPE) grades with a minimum of potential extractables and leachables.

The Mediprene OF range, helps to prevent the possibility of oil migrating or leaching out of the material, a key requirement for medical and healthcare-related devices. They are ideal for sensitive medical applications where transparency is also required.

Special features

- Minimum of potential extractables and leachables
- PVC, silicone and latex free
- Soft-touch appeal
- 40 to 90 Shore A
- Transparent
- Anti-kinking
- Production site accredited to ISO 13485
- Sterilizable with gamma, ethylene oxide (EtO) and steam
- Flexibility over broad temperature range
- Excellent sealing and adhesion

Regulatory compliance

Representative Mediprene grades have passed cytotoxicity tests according to ISO 10993-5 and are compliant with USP Class VI. Mediprene TPE materials are PVC, silicone and latex free, making them allergen free and a viable alternative to PVC based compounds.

Tubing

The high level of transparency combined with good anti-kinking properties make Mediprene oil free compounds highly suitable for medical tubing applications. Mediprene OF 753M, OF 803M and OF 853M also show a PVC like behaviour, with slow recovery after deformation.

Easy flowing grades

Mediprene OF 601M, OF 701M, OF801M and OF 901M are grades with higher melt flow rates, suitable for injection moulding of applications with thinner walls such as patches or connectors.

Applications

Hot melt adhesives (for example for connections) adhere well to the Mediprene OF range . These compounds also show excellent performance with double-coated tapes for “stick to skin” applications such as patches for fixation of tubing or other medical components to skin.

For further information about our Mediprene TPE compounds please contact mediprene@elasto.se or visit www.mediprene.com

A selection of Mediprene Oil Free grades

Material	Hardness Shore A	Colour	Specific Gravity g/cm ³	Tensile Strength MPa	Elongation at Break %	Tear Strength kN/mm	Modulus 100% MPa	Modulus 300% MPa	MFR 5 kg/190°C g/10 min
Test Method	ASTM D 2240 ¹		ASTM D 792	ASTM D 638	ASTM D 638	ASTM D 624	ASTM D 638	ASTM D 638	ASTM D 1238
OF 400M	40	Transparent	0.89	7	700	14	0.8	1.3	2
OF 500M	50	Transparent	0.89	10	700	20	1.1	1.9	2
OF 600M	60	Transparent	0.89	9	600	30	1.6	2.8	2
OF 700M	70	Transparent	0.89	11	600	41	2.5	4.0	2
OF 800M	80	Transparent	0.89	13	600	58	4.5	6.4	2
OF 900M	90	Transparent	0.89	18	600	69	5.8	7.5	2
OF 601M	60	Transparent	0.89	14	650	40	1.4	3.1	9
OF 701M	70	Transparent	0.89	15	650	46	2.4	4.6	10
OF 801M	80	Transparent	0.89	15	650	55	3.7	5.9	11
OF 901M	90	Transparent	0.89	15	650	63	5.0	7.1	12
OF 753M	75	Transparent	0.91	12	550	62	4.0	6.0	1.5
OF 803M	80	Transparent	0.91	13	600	70	5.0	7.0	1.5
OF 853M	85	Transparent	0.91	14	600	74	5.5	7.5	1.5

¹⁾ 4mm

Processing

The material has excellent processing characteristics and can be processed using conventional thermoplastic fabricating methods, including injection moulding and extrusion.

Processing Temperatures

Barrel Temperatures °C

Mould Temperatures °C

Injection Moulding

180 - 230

20 - 50

Extrusion

150 - 210

Service Temperature Range:

-50 to +80°C (for 40 and 50 Sh A OF, unstressed material)

-50 to +125°C (for 60 – 90 Sh A OF, unstressed material)

Presentation:

Free flowing pellets that can be processed without predrying, when stored under normal conditions.

The above information is, to the best of our knowledge, true and accurate, but any recommendations or suggestions which may be made are without guarantee, since the conditions of use are beyond our control. which may be made are without guarantee, since the conditions of use are beyond our control.

HEXPOL TPE

About us

The HEXPOL TPE family is a leader in the development and manufacture of thermoplastic elastomers (TPE) and complimentary compounds.

With a strong heritage in the TPE market our companies include established names such as ELASTO and Müller Kunststoffe. We deliver a trusted combination of material know-how, R&D, production capability and comprehensive technical services. As part of the HEXPOL group of companies, we share an extensive global footprint covering EU, Asia-Pacific and NAFTA, enabling us to support our customers worldwide.

A comprehensive TPE product portfolio includes TPS, TPO, TPV, TPU and cork compounds and is led by global brands Dryflex®, Mediprene®, EPSeal®, Lifoprene® and Lifocork®. We support OEMs, moulders and designers at all stages of product development in the medical, electronic, automotive, caps & closures, construction and consumer markets.

Contact us...

This product guide serves as an overview of our products; we are continuously testing ingredients to create new material combinations with enhanced characteristics. Use this guide as an introduction to our products, if you do not see what you are looking for, please contact us and we will be happy to discuss your specific requirements.

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