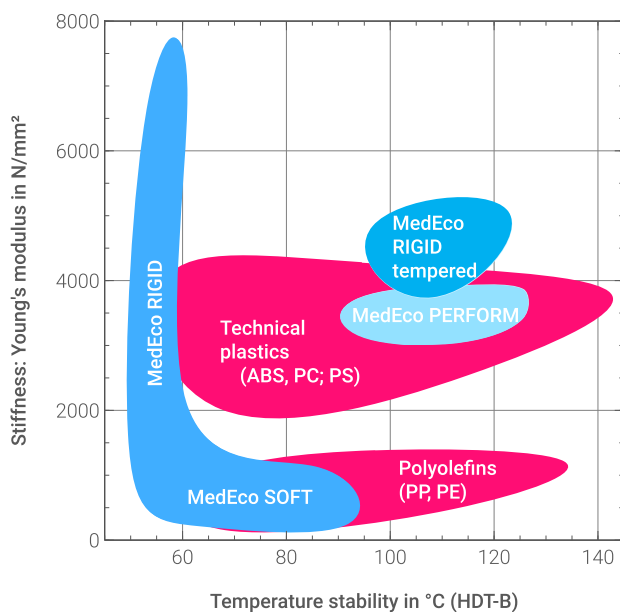




MedEco Compounds

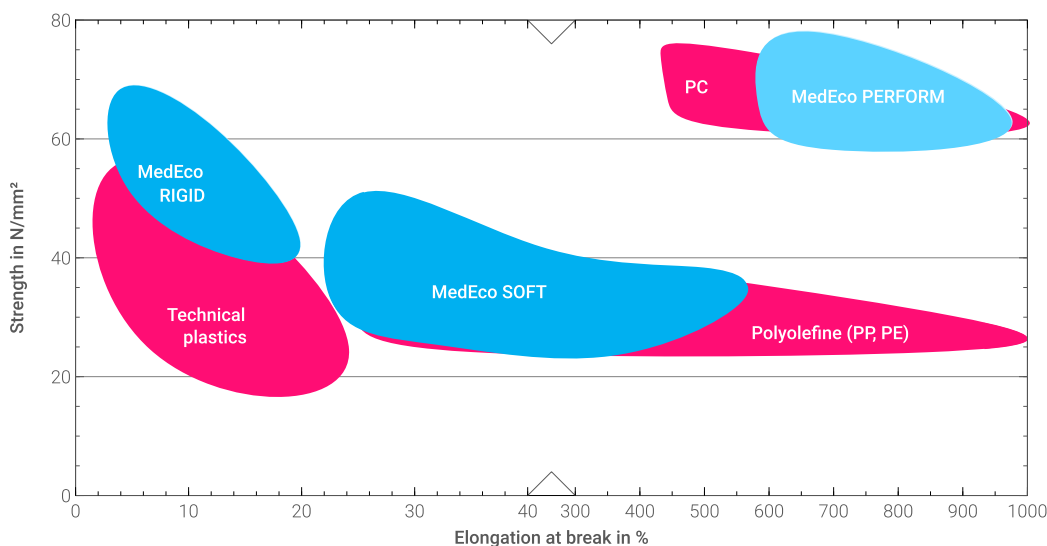
Factsheet



Properties

- ▶ Biobased
- ▶ Reduced CO₂ footprint
- ▶ ISO 10993 conform
- ▶ EO/Gamma/X-Ray/SCC sterilization capable
- ▶ Quality management acc. ISO 13485

The MedEco bio-compounds are intended for applications in medical and laboratory devices and packaging. They have a significantly reduced environmental impact compared to fossil plastics and are an important part of a truly sustainable circular economy.



Does your application have special requirements?

Our compounds can be adapted to your needs over a wide range if necessary. Contact us!

You can find our standard materials on the following pages.

MedEco Compounds – Standard Materials

Rigid Bioplastics: Rigid components, also transparent, with best CO₂ footprint and great price-performance ratio. Preferably for moderate temperature requirements. (See table below)

Soft Bioplastics : For medium stiff components with demanding temperature resistance requirements. Increased impact strength and a good environmental balance. (See next page)

Performance Bioplastics : The high performance plastic with medium stiffness. Crystal clear, very durable with high strength and impact resistance and heat deflection temperature. (See next page)

		Rigid Bioplastics				
MedEco Grade >>		ICB	ICB C1	IGH	XCB	XGB
Application	Injection Molding	▲	▲	▲		
	Extrusion				▲	▲
Risk class	MDR I	▲	▲	▲	▲	▲
	MDR II**	▲	▲		▲	
ISO 10993	Physical and chemical assessment	▲	▲	▲	▲	▲
	Cytotoxicity	▲	▲	▲**	▲	▲**
	Sensibilization	▲	▲	▲**	▲	▲**
	Skin irritation	▲	▲	▲**	▲	▲**
	Acute systemic toxicity	▲	▲	▲**	▲	▲**
	Hemocompatibility	▲	▲		▲	
	Other biocomp characteristics:	upon request				
Sterilization	Ethylenoxid (EO)	▲	▲	▲	▲	▲
	Radiation sterilization (γ, E-Beam, X-Ray)	▲		▲	▲	▲
	Supercritical CO ₂ (SCC)	▲	▲	▲	▲	▲
Physical	Density g/cm ³	1,24	1,24	1,30	1,24	1,26
Processing	MFI (Flow, 190°C/2,16kg) g/10min	30	32	35	2,6	3,5
	MFI (Flow, 230°C, 2,16kg) g/10min	-	-	-	-	-
	Melt temperature °C	175	175	175	155	155
	Pre-drying yes/no	yes	yes	yes	yes	yes
Mechanical	Young's modulus (tensile) N/mm ²	3450	3450	4300	3540	4300
	Tensile Strength N/mm ²	65	65	65	75	50
	Elongation at break %	5,5	2,0	6,5	3,5	8
Impact	Charpy notched, 23°C kJ/m ²	2,5	2,5	2,5	5	5
Heat	HDT B °C	105*	55	110*	60	60
Organic content	Bio carbon content %	>99	>99	>98	>99	>98

*With annealing process. Without post-treatment: 60°C. Annealing reduces transparency.

** Class IIb and higher risk classes depending on product type, intended use and risk assessment. Any MDR-regulated use of our materials requires a release from BIOVOX.

The values listed are typical values and are not to be understood as specifications.

MedEco Compounds – Standard Materials

An overview of our soft variants and performance plastics. Do you need different properties? Feel free to contact us. You will find our contact information at the end.

		Soft Bioplastics		Performance Bioplastics	
MedEco Grade >>		IPI	XPI	ICH	XCI
Application	Injection Molding	▲		▲	
	Extrusion		▲		▲
Risk class	MDR I	▲	▲	▲	▲
	MDR II**	▲**	▲**	▲**	▲**
ISO 10993	Physical and chemical assessment	upon request			
	Cytotoxicity				
	Sensibilization				
	Skin irritation				
	Acute systemic toxicity				
	Hemocompatibility				
	Other biocomp characteristics:				
Sterilization	Ethylenoxid (EO)	▲	▲	▲	▲
	Radiation sterilization (γ, E-Beam, X-Ray)	▲	▲	▲	▲
	Supercritical CO2 (SCC)	▲	▲	▲	▲
Physical	Density g/cm ³	0,96	0,92-0,96	1,36	1,31
Processing	MFI (Flow, 190°C/2,16kg) g/10min	22	0,3-1,0	-	-
	MFI (Flow, 230°C, 2,16kg) g/10min	-	-	10	5
	Melt temperature °C	115	115	240	235
	Pre-drying yes/no	no	no	yes	yes
Mechanical	Young's modulus (tensile) N/mm ²	900	200-1100	2700	2300
	Tensile Strength N/mm ²	>9 (23)	>20	79	64
	Elongation at break %	35	>200	72	120
Impact	Charpy notched, 23°C kJ/m ²	2,5	-	7	10
Heat	HDT B °C	70	75	114	92
Organic content	Bio carbon content %	>90	>90	56	38

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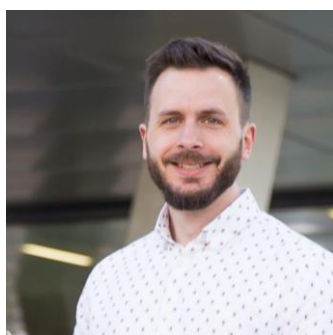
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[Contact >>](#)

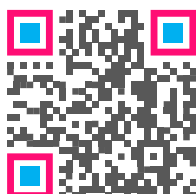


Book your free consultation now!

[>>www.calendly.com/biovox](https://www.calendly.com/biovox)



Dr.-Ing. Julian Lotz



I look forward to getting to know you and your application!

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Do not hesitate to contact me!

Julian is co-founder and has been working with fiber-plastic composites & compounds for 17 years.

He helps you, together with the BIOVOX experts, to master the challenge of sustainable medical and laboratory technology.

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