# **CUSTOMIZED POLYMER MATERIALS**

Engineered for Bike Components

# Want to shift gears?

Unleash potential in component development. We got what it takes.





### Perfect compounds for perfect components

LUVOCOM® High-performance Compounds LUVOTECH® Technical Compounds LUVOSINT® Additive Manufacturing Solutions

LUVOCOM compounds play to their strengths wherever high and particularly high strength, stiffness, impact strength and creep resistance are required. Both as glass fiber, carbon fiber, extra strong carbon fiber or long fiber reinforced thermoplastic products.

In addition, there are further specified material solutions such as LUVOCOM Tribological (for solutions where wear and friction optimization count), LUVOCOM Surface (for special surface appearance), LUVOCOM Conductive and Protection (for all components where especially shielding and conductivity are top priorities) and LUVOSINT – made for all components where strength, damping and customized solutions are essential design requirements.

# In full commitment to you!

Photos on cover page and below show Dion Mauersberger, employee of Lehmann&Voss&Co. KG, runs downhill and enduro races on the UCI ranking list.



	Components	Functionalities	LEHVOSS material solutions	Main material features	STRUCTURAL	WEIGHT	TRIBOLOGICAL	SURFACE	CONDUCTIVE
	Dual control lever Shift lever Brake lever	Cable, hydraulic / electronic	LUVOCOM Tribological	Wear and friction optimized		Х	Х		
		Mechanical / Main body	LUVOCOM Structural (GF, CF, XCF, LFT)	High and extra high strength, stiffness and impact resistance	Х	Х			
	Front and rear derailleur	Cable, (hydraulic) /electronic	LUVOCOM Tribological	Wear and friction optimized		Х	Х		
		Mechanical / Main body	LUVOCOM Structural (GF, CF, XCF, LFT)	High and extra high strength, stiffness and impact resistance	Х	Х			
	Saddle	Mechanical / Main body	LUVOCOM Structural (GF, CF, XCF, LFT)	High and extra high strength, stiffness and impact resistance	X	Х			
	Sauute	Lattice structure	LUVOSINT	Strength and damping. Customized solutions	X	Х			
<b>*</b> /	Pedal	Bearings	LUVOCOM Tribological	Wear and friction optimized		Х	Х	Х	
		Cages	LUVOCOM Structural (GF, CF, XCF, LFT)	High and extra high strength, stiffness and impact resistance	Х	Х			
	Cranksets and power meters	Covers / support assembly	LUVOCOM Structural (GF, CF, XCF, LFT) and Surface	High and extra high strength, stiffness and impact resistance. Surface appearance	X	Х		Х	
	Bottom bracket	Bearing shells (press fit)	LUVOCOM Structural (GF, CF, XCF, LFT)	High and extra high strength, stiffness and impact resistance, creep resistance	Х	Х			
	Battery Housing / Carriers	Structural support / Housings	LUVOCOM and LUVOTECH Structural (GF, CF, XCF, LFT)	High and extra high strength, stiffness and impact resistance	Х	Х			
	e-Bike motor	Covers	LUVOCOM Structural (GF, CF, XCF, LFT), Conductive and Protection (EMI)	High and extra high strength, stiffness and impact resistance. Shielding and heat conductivity	Х	Х		Х	Х
		Gears	LUVOCOM Tribological	Wear and friction optimized		Х	Х		
		Fixtures	LUVOCOM Structural (GF, CF, XCF, LFT)	High and extra high strength, stiffness and impact resistance	Х	Х			
19.9	Control unit	Fixtures	LUVOCOM Structural (GF, CF, XCF, LFT)	High and extra high strength, stiffness and impact resistance	Х	Х			
		Covers	LUV0COM Surface	Surface optimized.		Х		Х	
Î	Suspension forks Rear-shocks Suspension Seat Post Vario seat post	Bushings / support rings	LUVOCOM Tribological	Wear and friction optimized		Х	Х	Х	
		Cartridge holders Cages Lever remote control	LUVOCOM Structural (GF, CF, XCF, LFT)	High and extra high strength, stiffness and impact resistance	X	Х			
	Handlebar grips	Grips	LUVOCOM Structural (GF, CF, XCF, LFT) and Surface	High and extra high strength, stiffness and impact resistance. Surface appearance	X	Х			

## Our choice of materials is as varied as your requirements profile

Our high-performance materials and compounds offer you material alternatives for all points along your value chain. From the point of view of technical performance, component appearance and design freedom, as well as in terms of overall costs and carbon footprint.

This enables you to exploit potentials in terms of optimized component development, strength and weight that were previously undiscovered or technologically impossible to realize.

#### With engineering plastics and special plastic compounds:

- whose material density and strength level are equal to metals or especially compared to light metal alloys in some cases significantly superior, and
- which are produced at various regional LEHVOSS production sites in Europe, in the USA as well as in Asia and thus support or ensure your parts production in the respective country of sale through short distances.

#### These plastics include:

- High-strength materials with glass fiber and carbon fiber reinforcement for structural and add-on parts,
- Ultra-light engineering materials and high-performance materials for consistent lightweight construction with maximum strength,
- Engineering plastics with glass fiber and carbon fiber reinforcement for group components and add-on parts,
- Tribologically optimized materials for minimizing wear and friction or for dry running, and
- Technical recycled materials to further reduce your carbon footprint.

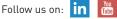
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