

LUVOBATCH®

Customized masterbatches

LUVOBATCH® Functional Masterbatches

for best
performance



Lehmann&Voss&Co.



LUVOBATCH® functional masterbatches for best performance

Additives are an often underestimated, but elementary component of a formulation to bring your product to its best performance. Additives can be used to create highly functional, long-lasting and advanced solutions for a wide variety of injection moulding and extrusion parts.

For an optimal effect, an exact dosage and complete dispersion of the additives in the polymer is necessary. In addition to the precise addition of sometimes very small quantities, the handling of unfamiliar delivery forms such as liquids, pastes or powders is a considerable effort and a potential source of error. Masterbatches are used to reduce this. These can contain individually optimally dispersed additives and are thus far more reliable and often more economical in injection moulding and extrusion applications.

LUVOBATCH® masterbatches give you the flexibility you need to individually improve the functions and properties of your various components. In addition to the standards such as migrating slip agents and UV- and thermostabilisation, functional masterbatches such as processing aids, non-migrating slip agents, drying agents as well as additive combinations of these and customer-specific masterbatches belong to our possibilities.

In our technical centre, we offer the perfect know-how to develop the individually suitable solution in close cooperation with our customers.



The products mentioned in this brochure reflect only an extract of our portfolio. We specialise in products according to your requirements.

Migrating and Non-Migrating Slip Agents from LUVOBATCH®

To improve the sliding behaviour of a component, additive masterbatches can be used to optimise the external (tribological) sliding quality.

External slip agents are characterised by the fact that they do not form a bond with the polymer. They are transported by migration to the outside and create an invisible, yet permanent "lubricating film". Fast running processes, which would otherwise be negatively affected by high friction, can be processed better due to the lowered coefficient of friction (CoF) and the load on the melt is reduced.

Non-migrating slip agents are another option. These contain a high-molecular siloxane which remains in the polymer and does not migrate. This allows a controlled coefficient of friction (CoF) to be achieved without negatively affecting the post-processing, such as printing and welding.

LUVOBATCH®	Application in	Dosage	Migrating
PA SA 5232	PA	0.5 – 10 %	Yes
PET SA 5523*	PET	0.5 – 2 %	Yes
PP SA 0029	PP	8 – 10 %	Yes
PE SA 5330	PE	0.5 – 2 %	Yes
EverGlide MB 450	PE, TPE	2 – 8 %	No
EverGlide MB 125	PP	2 – 8 %	No
EverGlide MB 125-11 Ultra	PP	2 – 8 %	No
EverGlide MB 1150	ABS	2 – 8 %	No
EverGlide MB 1350	PC	2 – 8 %	No
EverGlide MB 1550	PET	2 – 8 %	No
EverGlide MB 1950	PA	2 – 8 %	No
EverGlide MB 3950	EVA	2 – 8 %	No

* = also available as crystallised variant

Antioxidants / Thermostabilisers from LUVOBATCH®

These sophisticated masterbatches prevent damage to the plastic caused by heat. They help to limit chain reactions caused by "free radicals", which cause damage to polymer chains. Through the use of free radical scavengers and antioxidants, we effectively prevent loss of gloss, discolouration and functional limitations such as chalking. Our portfolio includes combinations of processing and long-term thermostabilisation.

LUVOBATCH®	Application in	Dosage	Application
PA HS 9611	PA6, PA66	1 – 3 %	Dark/coloured applications
PA AO 0043	PA6, PA66	2 – 4 %	Light colours
PA AO 9927	PA6, PA66	2 – 4 %	Light colours, for processes with high shear
PA AO 0036	PA6, PA66	0.5 – 5 %	Fibres/copper-free, carrier PA6
PA AO 5609	PA66	0.5 – 5 %	Fibres/copper-free, carrier PA66
PP AO 0077	PP	1 – 4 %	Heat stabilisation & antioxidant
PE AO 9050	PE	1 – 4 %	Heat stabilisation & antioxidant

Odour Absorbers from LUVOBATCH®

These masterbatches contain a special active ingredient which, due to its porosity, absorbs odours and gas from polyolefines.

LUVOBATCH®	Application in	Dosage	Differentiation	Application
PE FK 5596	PE, PP	1 – 5 %	Molecules up to 5 Å	Injection moulding and extrusion
PE FK 5597	PE, PP	1 – 5 %	Molecules up to 10 Å	Injection moulding and extrusion

Anti-Statics from LUVOBATCH®

As electrical insulators, plastics tend to become electrostatically charged and attract dust. LUVOBATCH® offers numerous solutions that prevent this effect. Hydrophilic additives migrate automatically to the surface and bind water molecules to form a film that wets the plastic surface, thereby exhibiting the anti-static effect.

LUVOBATCH®	Application in	Dosage	Effect	Ohm	Comment
PE AS 9218	PE/PP	0.5 – 3 %	Fast/ long-time	Up to 10^{10} Ω	AS with fast and long-term effect
PE AS 4001	PE/PP	0.5 – 3 %	Long-time	Up to 10^{10} Ω	AS with long-term effect
PE AS 9768	PE/PP	0.5 – 5 %	Long-time	Up to 10^{11} Ω	Simple AS with low transparency
PE AS 9217	PE	0.5 – 3 %	Fast/ long-time	Up to 10^{11} Ω	Amine-free AS
PET AS 5519	PET	5 – 10 %	Fast/ long-time	Up to 10^9 Ω	Contact transparent
EV AS 5411	EVA	1 – 5 %	Fast/ long-time	Up to 10^{11} Ω	Especially for EVA

Drying Agents from LUVOBATCH®

When extruding regenerated polymers and also moist virgin material, a special highly dispersed drying agent can improve the surface and technical properties of the extrudate.

LUVOBATCH®	Application in	Dosage	Application
PE DRY 5336	PE, PP	1 – 5 %	Injection moulding and extrusion

UV Stabilisers from LUVOBATCH®

UV stabilisers from LUVOBATCH® are the perfect protection for thermoplastics. Our UV protection products offer a variety of advantages, such as the prevention of discolouration, light fastness, low inherent colour and low migration tendency.

UV radiation with its high energy value – especially in combination with damaging environmental influences – can destroy your polymers in a very short time. The surfaces become matt and chalk out. As a result the component cracks and disintegrates.

Masterbatches from LUVOBATCH® offer several coordinated solutions for UV stabilisation: UV absorbers and HALS (Hindered-Amine-Light-Stabiliser).

The UV absorbers filter the damaging parts of the light and convert them into heat. HALS additives prevent the reactions of photo-oxidation products such as peroxides and radicals, on surfaces and in deeper layers.

LUVOBATCH® is characterised by a comprehensive product range on the subject of “light resistance”.

LUVOBATCH®	Application in	Dosage	Absorber/Stabi	Comment
PE UV 5421	PE/PP	0.5 – 5 %	Stabi	For colourless applications
PE UV 5436	PE/PP	0.5 – 5 %	Stabi	For many polyolefin applications
PE UV 5462	PE/PP	1 – 5 %	Absorber + Stabi	Protects component and parts behind it
PA UV 5164	PA	2 – 10 %	Stabi	Especially for the protection of PA
PP UV 5082	PP	0.5 – 5 %	Stabi	Highly loaded, for transparent applications
PP UV 5193	PP	1.5 – 7 %	Absorber + Stabi	Long term, outdoor application

Processing Aids from LUVOBATCH®

If you want to optimise your extrusion process, increase output and reduce energy consumption, our masterbatches with processing aid are practically unbeatable. LUVOBATCH® processing aids use fluoropolymers to optimise your processes. The fluoropolymer film, which adheres excellently to metal, acts like a sliding layer in the extruder. The advantages are manifold:

- Lower surface energy = melt runs faster and more evenly
- “shark-skin” is prevented
- Deposits on the nozzles are reduced
- Profile surfaces are of higher quality
- Lower processing temperatures
- Wear decreases
- Lower pressure due to seemingly lower viscosity

For all this, low dosages are sufficient and do not influence subsequent work steps such as printing.

In some applications, fluorine-containing ingredients are not desired. For these applications we can offer fluorine-free (PFAS-free) processing aids. They are based on a mixture of tailor-made and functionalised polysiloxanes.

LUVOBATCH®	Application in	Dosage	Applications
PA PPA 9659	PA	0.5 – 2 %	Homogeneous layer thickness
PE PPA 9118	PE	1 – 2 %	Fast effect, suitable for abrasive components
PE PPA 9407	PE	0.5 – 2 %	Higher loading, fast action, suitable for abrasive components
PE PPA 9350	PE(HD)	1 – 2 %	Especially for HDPE, especially for pipe ext., higher temperatures, suitable for abrasive components especially suitable for preventing melt fracture, less interaction with chemical active ingredients
PE PPA 9679	PE, PP	0.5 – 2 %	Higher temperatures, high filled applications, abrasive components, especially suitable for preventing nozzle whiskers
EverGlide PA45	PE, PP, EVA	1 – 4 %	PFAS-free, also for higher temperatures
EverGlide PA49	PA6, PA66	1 – 4 %	PFAS-free
EverGlide PA41	PP	1 – 4 %	PFAS-free, especially for PP



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