## \_IN ADVANCE

Congratulations on your new rims and wheels! You have chosen one of the highest quality, most stable and at the same time lightest products in its class. Genuine aerospace technology - developed and manufactured by us in Braunschweig and fitted to your bike by hand.

Your safety is important to us, so please read these instructions for use carefully before you start fitting and ride your new wheel for the first time. Third-party users must also be informed of the following provisions. Therefore, please keep these instructions for later use.

These instructions for use are aimed at the user of the wheels and cover handling, assembly, maintenance and care. Please follow all instructions. The operating instructions for all other components on your bike should also be observed.

Your Lilienthal-Team

### **ATTENTION**

Improper use or failure to follow these instructions for use can lead to accidents resulting in serious injury or even death!

## **WARRANTY & SERVICE**



#### THERE FOR YOU

Your performance is our top priority. In addition to high-quality products, we also offer you first-class service, a 3-year warranty and a lifetime crash replacement programme for our entire product range to ensure lasting riding comfort and speed.

 $replacement\ programme\ for\ our\ entire\ product\ range.$ 



#### PRODUCT REGISTRATION

To receive the full manufacturer's warranty and participate in the Crash Replacement Programme, you must register your products with us after purchase.

Please send us an e-mail with a copy of the invoice and your address and telephone number:

products@lilienthal.bike



## 3-YEAR MANUFACTURER'S WARRANTY

The precision of our technology enables us to manufacture highquality products of proven quality. We therefore give our customers a 3-year manufacturer's guarantee against defects in material and workmanship (product registration required).

Modified, incorrectly fitted, misused or obviously misused Lilienthal products are not covered by this quarantee.

COPRO Technology GmbH is not liable for damages under this guarantee, in particular not for indirect, accidental damage, indirect damage and consequential damage.



## LIFETIME CRASH REPLACEMENT

We offer the first owners of our Lilienthal products a lifetime crash replacement programme that covers all damage (optical damage is excluded) outside the warranty that affects the functionality of your rim. We reserve the right to check all cases for plausibility. In a plausible case, we will offer you a replacement of your product at a reduced price. It is not possible to change the product. Payment of the purchase price is excluded. If a repair is possible, we will offer and carry it out promptly and at a favourable price.

We offer you the following discount:

1. year after purchase: 50% off the new price of the rim

2. year after purchase: 30%3. year after purchase: 25%

To take advantage of the Crash Replacement, you must observe the following points:

- The Crash Replacement must be reported to COPRO Technology GmbH (COPRO / Lilienthal) in advance
- The proof of purchase must be presented
- The defective wheels must be sent in and all external components
- Conversion, freight and customs fees are not covered

We will be happy to take care of the shipping and wheel assembly, the costs for which we will be happy to provide you with a cost estimate in advance. Simply let us know when you report the damage,

- Replacement is only possible on the same model. However, COPRO /Lilienthal be reserves the right to replace the damaged item with an alternative item of equal value.
- There is no legal claim, the damaged wheel becomes the property of COPRO/Lilienthal without any exeptions.
- The crash replacement does not replace warranty provisions of individual countries
- Our Crash Replacement only applies to COPRO / Lilienthal products

### \_INTENDED USE

Lilienthal products are divided into four categories. Whether cross-country, marathon or all-mountain, we have the perfect rim for every challenge. Details can be found in the enclosed classification or at www.lilienthal.bike/Produkte.

Lilienthal components may only be used within the intended category or below. Otherwise the user assumes full responsibility.

Category	Field of application
XS	Marathon/Race
XC	Cross Country
XT	Trail & Enduro
XE	E-Bike
GX	Gravel



#### **GENERAL INFORMATION**

Our rims are approved for both tubular and tubeless systems.

All Lilienthal rims are to be used exclusively with brake discs. Using them with rim brakes can cause considerable damage, which represents an enormous safety risk for the rider and third parties, as the rims are not designed for rim brakes.

Modification of the rims is not permitted and will void your will invalidate your warranty.



#### WEIGHT RESTRICTION

The system weight (bike, rider and equipment) is listed below for each category and must not be exceeded:

XS Marathon/Race	120 kg
XC Cross Country	130 kg
XT Trail & Enduro	130 kg
XE E-Bike	140 kg
GX Gravel	140 kg



#### **OPTICS**

Our rims are handmade and have a uniform surface structure that is uniform surface structure that is unique on the market. Nevertheless, there may be minimal deviations in appearance depending on the visual position. This makes each rim unique and has no influence on the quality of the product.

Direct incidence of light provides a wonderful view of the individual fibres with sometimes shimmering shades.

### **ATTENTION**

Failure to observe the following points may have consequences for the durability of the rims and will invalidate your warranty.

claims will lapse.

### RIM ASSEMBLY

The choice of components, the spoking pattern and the correct wheel construction have a decisive influence on the functionality and safety of the entire wheel and can significantly limit it. We therefore recommend having wheels assembled and maintained by an experienced specialist.



#### **GENERAL INFORMATION**

Before you start assembling your wheel, make sure that the respective add-on parts such as hubs, spokes, nipples etc. are compatible with each other and with Lilienthal rims. Make sure that they are compatible with each other and with the Lilienthal rims and read the relevant operating instructions carefully.

Use suitable tools to assemble a wheel and only use tyres, tubes, rim strips etc. that have the appropriate dimensions for the rim or wheel

For rims with 24 holes we recommend a double crossing and for rims with 28 or 32 holes a triple crossing of the spokes on all sides, as the position and alignment of the milling holes have been specially optimised for this.



## EFFECTIVE RIM DIAMETER (ERD)

The ERD value is a measure for calculating the spoke lengths. This can be measured and specified in different ways (nipple contact surface, nipple slot, nipple head). We specify the nipple slot ERD, which means that the spokes end at the height of the nipple slot and enable high wheel stability.

Lilienthal ERD

27,5" = 0 560 mm 29" = 0 598 mm



#### ASYMMETRY OF THE RIMS

Attention: Please note the possible asymmetry of the rim! The asymmetrical displacement must point away from the brake disc on the front wheel and away from the derailleur on the rear wheel in order to compensate for the flange offset of the hubs.

The asymmetry depends on the rim model!

## LILIENTHAL



#### NIPPI FS

You can use internal or external nipples for the wheel assembly. Only external nipples are used in our configurations. Our recommendation for wheels with external nipples are the 'Sapim Polyax Double Square 14G 16mm' nipples with Secure Lock. Please note that the calculation of the spoke lengths depends on both the hub used and the type of nipple.



#### **WASHERS**

If you are mounting your wheel with external nipples, it is essential to use 'MG-Wascher' washers (e.g. from Newmen). They are positioned between the nipple and the rim. They must rest completely on the inner surface of the rim. To minimise wear, we recommend applying multi-purpose grease between the nipple and the washer.



## **SPOKE TENSION**

Beim Aufbau des Laufrades darf **folgende maximale Speichenzugkraft** nicht überschritten werden. Andernfalls kann es zum Speichenbruch oder zu einer Überlastung der Felge kommen.

maximum permissible spoke tensile force of the higher tensioned wheel side										
XS	1050 N									
all others	1200 N									

Please be sure to pass this information on to your trusted wheelbuilder.

## \_ASSEMBLY



## **GENERAL INFORMATION**

Using metal tyre levers can damage the surface, the tyre or the inner tube. Therefore, only use non-metallic tyre levers. Also do not use spoons or screwdrivers!

Attention: Observe the enclosed tyre pressure instructions. The maximum tyre pressure of the tyre used must not be exceeded.

In addition, only valves with a suitable diameter and sufficient length may be used. The valve hole must not be modified!



## TYRE FITTING WITH INNER TUBE

After you have put on your rim tape or tubeless tape, fit the tube and tyre according to the manufacturer's instructions. The use of soapy water or assembly fluid could make the process easier.

Then inflate the tyre to the maximum permissible tyre pressure. Please note that the lowest maximum pressure of the rim or tyre always applies (see tyre pressure information sheet). Now check the tyre fit

Make sure that the tyre rests evenly on the rim around the entire circumference and is flush with the rim flange. If the tyre is correctly seated, you can now reduce the tyre pressure to your preferred operating pressure.

If you are unsure, please contact a specialist!



### TYRE FITTING TUBELESS

Select the tubeless tape and tubeless valve that match the width and height of your rim (see tables below) and fit them. Then fill the tyre with sealant according to the manufacturer's instructions. Now you can fit your chosen tyre according to the manufacturer's instructions. The use of soapy water or assembly fluid could make this process easier.

Then inflate the tyre to the maximum permissible tyre pressure (see tyre pressure information sheet) and check that the tyre is correctly seated. Make sure that the tyre rests evenly on the rim around the entire circumference and is flush with the rim flange; if the tyre is seated correctly, you can now reduce the tyre pressure to your preferred operating pressure.

If you are unsure, please contact a specialist!

#### tubeless tape width

XS Marathon/Race	30-32 mm
XC Cross Country	30-32 mm
XT Trail Enduro	30-32 mm
XE E-Bike	30-32 mm
GX Gravel	25-27 mm

#### min. valve length

XS Marathon/Race	40 mm
XC Cross Country	40 mm
XT Trail Enduro	40 mm
XE E-Bike	40 mm
GX Gravel	60 mm

## LILIENTHAL

## CASSETTE

Choose your cassette to match the freewheel XD, XDR, Shimano HG, Microspline or Campagnolo and fit it according to the manufacturer's instructions.

# BRAKE DISC

Fit your brake disc according to the manufacturer's instructions.

# WHEELSET

To ensure that your wheel runs optimally, you should make sure that the hub sits flush in the dropout.

Observe the manufacturer's instructions for the quick release or thru axle. Before every ride, check that your wheels are correctly attached to the frame and fork.

## MAINTENANCE AND CARE

Check the integrity of your Lilienthal products before every ride. Damage can cause the component to fail, which can result in serious injury or even death.

Never ride with a defective component. This should be replaced immediately. If you have any questions, please contact us or a specialist dealer.

#### You should always pay attention to the following points:

activities	intervall								
Check tubeless tape for damage	every 6 months								
Replace tubeless tape	every 12 months								
Check spoke tension, concentricity and wear of the wheel	every 10 riding hours								
Check rim for damage	before and after every ride								
Clean with a soft sponge and a suitable suitable cleaning agent*	after every ride								
Proper attachment of the wheel and tyre pressure	before every ride								

\*CAUTION: Do not use high-pressure cleaners or aggressive cleaning agents!

# DISPOSAL & ENVIRONMENT PROTECTION

The statutory disposal guidelines apply. In principle, waste of all kinds must be avoided or recycled. Waste, carbon cleaning agents and liquids of all kinds must be disposed of in an environmentally friendly manner.

## HAVE FUN WITH YOUR NEW RIMS OR WHEELS!

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## **NOTES & COMMENTS**

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