

AIR-LINER range overview x market segment

ROAD	ALLROAD	GRAVEL	CROSS COUNTRY	DOWN COUNTRY	TRAIL	ENDURO	DOWNHILL
AIR-LINER ROAD							
	AIR-LINER LIGHT GRAVEL <small>NEW</small>						
			AIR-LINER LIGHT XC TRAIL				
			AIR-LINER PROTECT XC TRAIL <small>NEW</small>				
						AIR-LINER PROTECT DOWNHILL <small>NEW</small>	
						AIR-LINER PROTECT ENDURO <small>NEW</small>	
				AIR-LINER PROTECT E-BIKE <small>NEW</small>			












AIR-LINER

MY25

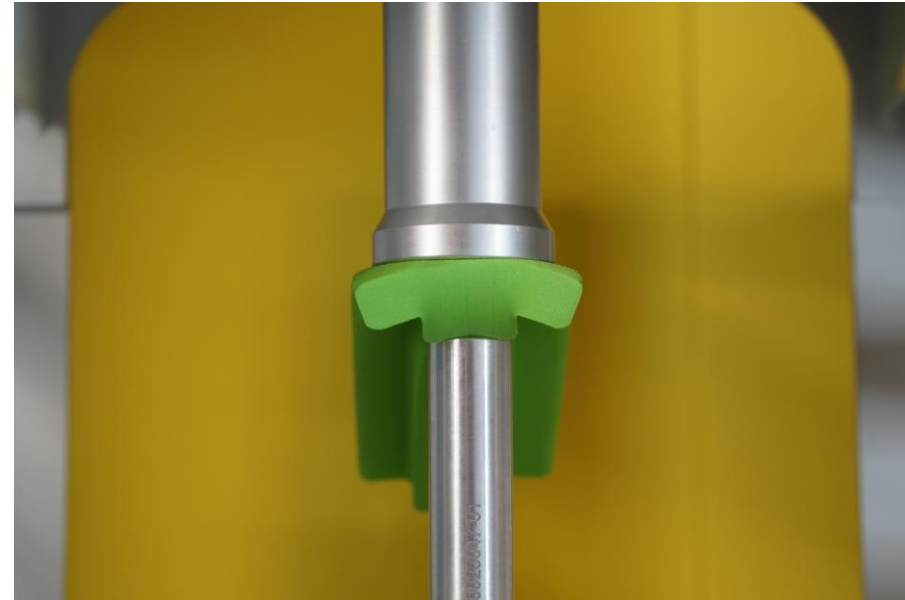
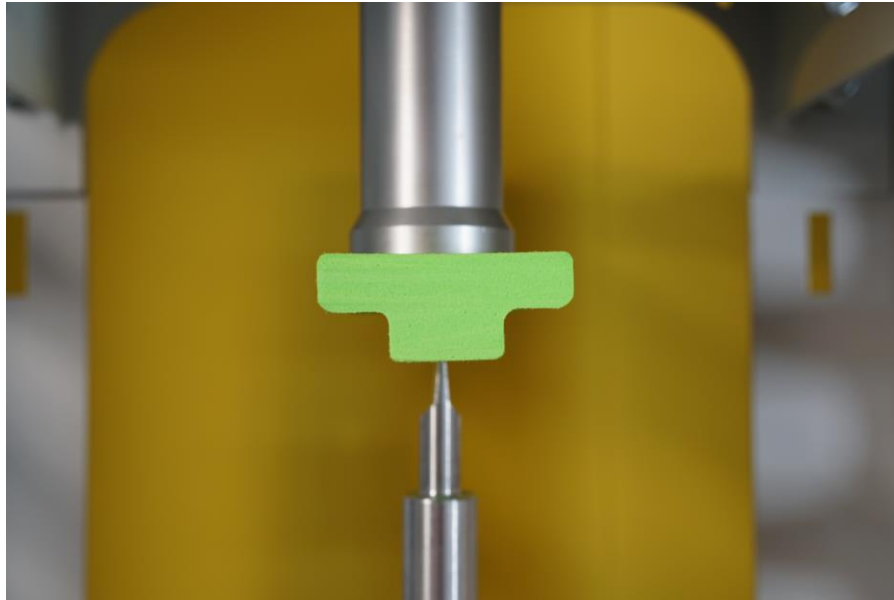


AIR-LINER range specification overview

SEGMENT	RANGE	PRODUCT	SHAPE	WHEEL		TIRE SECTION		WEIGHT	EST. LAUNCH
				RIM Ø	RIM WIDTH	MIN	MAX		
ROAD	Air-Liner Road	<i>AIR-LINER Road S</i>		700 - 28"	19/21mm	23mm	25mm	25g	N/A
		<i>AIR-LINER Road M</i>			19/21mm	25mm	28mm	30g	N/A
		<i>AIR-LINER Road L</i>			21/23mm	28mm	32mm	35g	N/A
GRAVEL	Air-Liner Light	<i>AIR-LINER LIGHT Gravel</i>		700 - 650B	23/25mm	42mm	50mm	40/45g	May-24
XC - TRAIL	Air-Liner Light	<i>AIR-LINER LIGHT XC-Trail</i>		29"	25/30mm	50mm 2.1"	60mm 2.4"	55g	N/A
	Air-Liner Protect	<i>AIR-LINER PROTECT XC-Trail</i>		29"	25/30mm	50mm 2.1"	60mm 2.4"	100g	Jul-24
ENDURO - DH	Air-Liner Protect	<i>AIR-LINER PROTECT E-Bike</i>		27.5" - 29"	30/35mm	60mm 2.4"	66mm 2.6"	145g	Jul-24
		<i>AIR-LINER PROTECT Enduro</i>		27.5" - 29"	28/35mm	60mm 2.4"	66mm 2.6"	130/135g	Feb-24
		<i>AIR-LINER PROTECT Downhill</i>						170/180g	Feb-24

LAB & FIELD TEST

Cutting resistance test



This test measure the cutting resistance of the foam

Drop Tower test



This test measure the rim impact protection provided by the insert in the event of heavy impacts.

Telemetry field test



TEST SET UP:

Rider weight: 90Kg

Bike weight: 13Kg

Total riding weight: 103kg

Bike: Hardtail, steel frame

Tires: Vittoria Barzo 29"x 2.25" TLR

Internal rim width: 30mm

Telemetry detection system: BYB

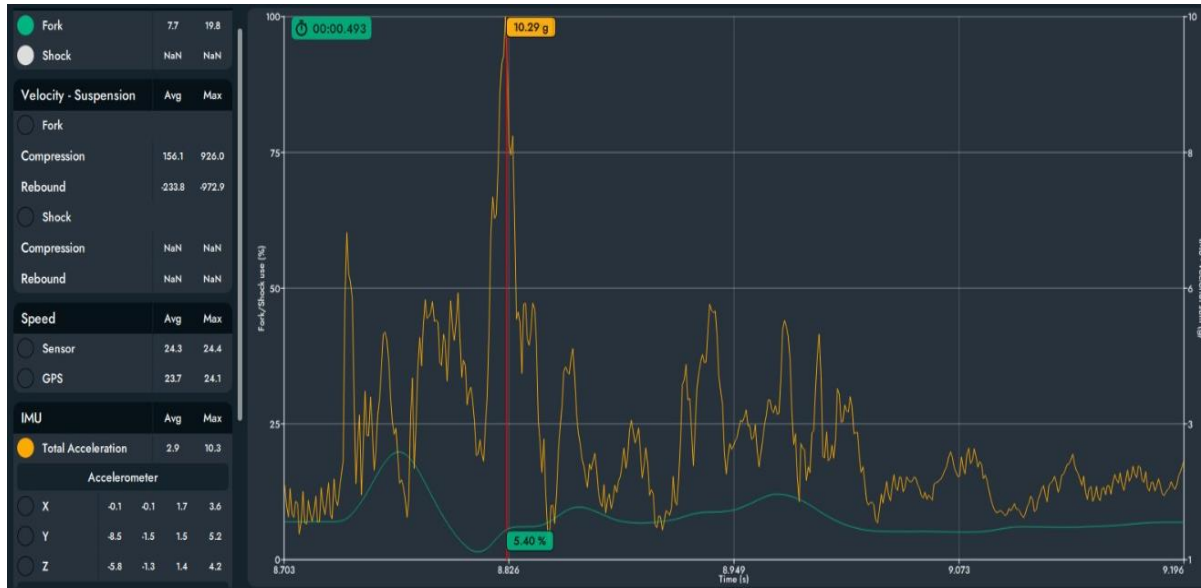
Obstacle: Steel bar (height: 45mm)

Impact speed: 20km/h

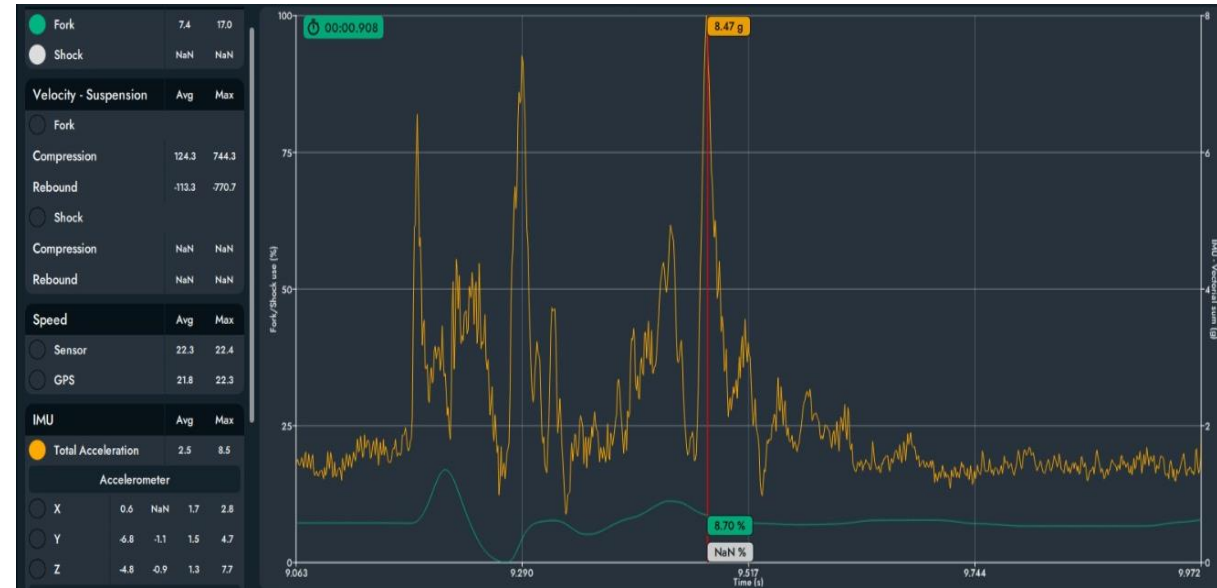
Rider position: seated on saddle.

Telemetry field test #1

Tubeless system without Air-Liner, Inflating pressure 1.8BAR:



Tubeless system with Air-Liner, Inflating pressure 1.8BAR:



OUTCOMES: Without Air-Liner Light the acceleration peak reached 10.3G on the impact generated by the wheel and the steel bar. The front suspension average travel was at 7,7%.

With Air-Liner light the acceleration peak reached 8,5G on the impact generated by the wheel and the steel bar. The front suspension average travel was at 7,4%.

The reduction of acceleration by using the Air-Liner Light is about 17,5%

Telemetry field test #2

Tubeless system without Air-Liner, Inflating pressure 1.1BAR:



Tubeless system with Air-Liner, Inflating pressure 1.1BAR:



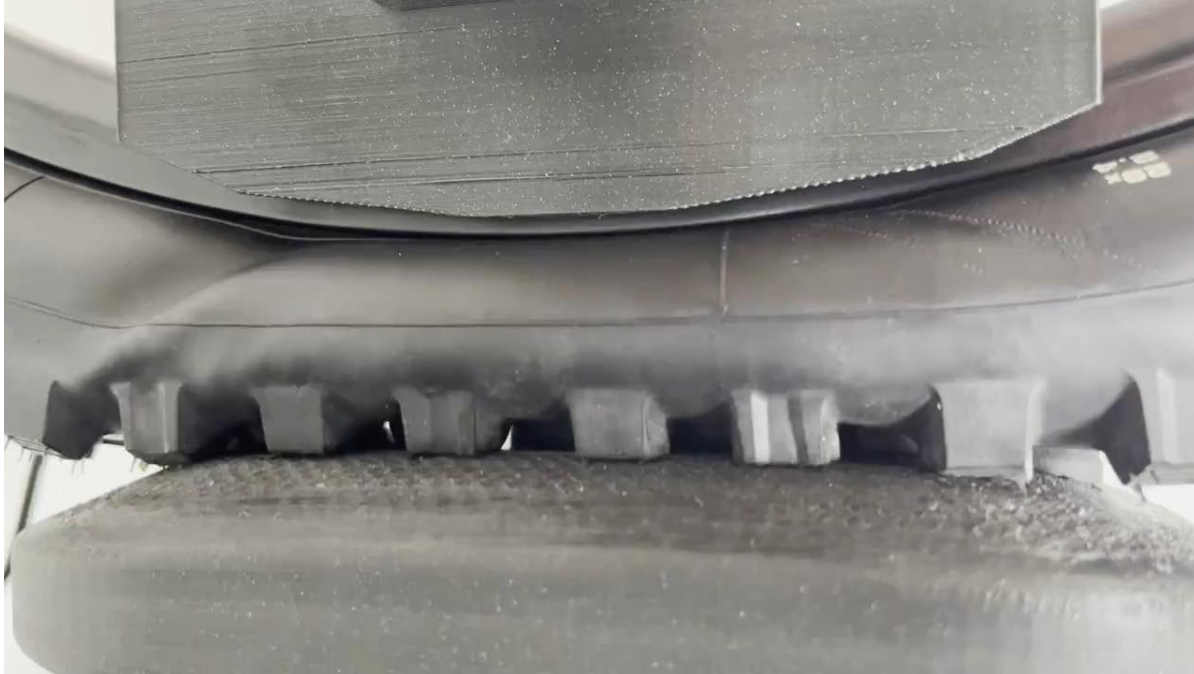
OUTCOMES: Without Air-Liner Light the acceleration peak reached 8,6G on the impact generated by the wheel and the steel bar. The front suspension average travel was at 7,4%.

With Air-Liner light the acceleration peak reached 6,9G on the impact generated by the wheel and the steel bar. The front suspension average travel was at 7,1%.

The reduction of acceleration by using the Air-Liner Light is about 19,5%

CONCLUSIONS: Since the acceleration (G) represents the vibration precepted by the rider, the use of Air-Liner Light improves the rider comfort and works like a vibration damper.

Dynamic compression



With this test we can measure the behaviour of the wheel system under the load and simulate what happens in real life.

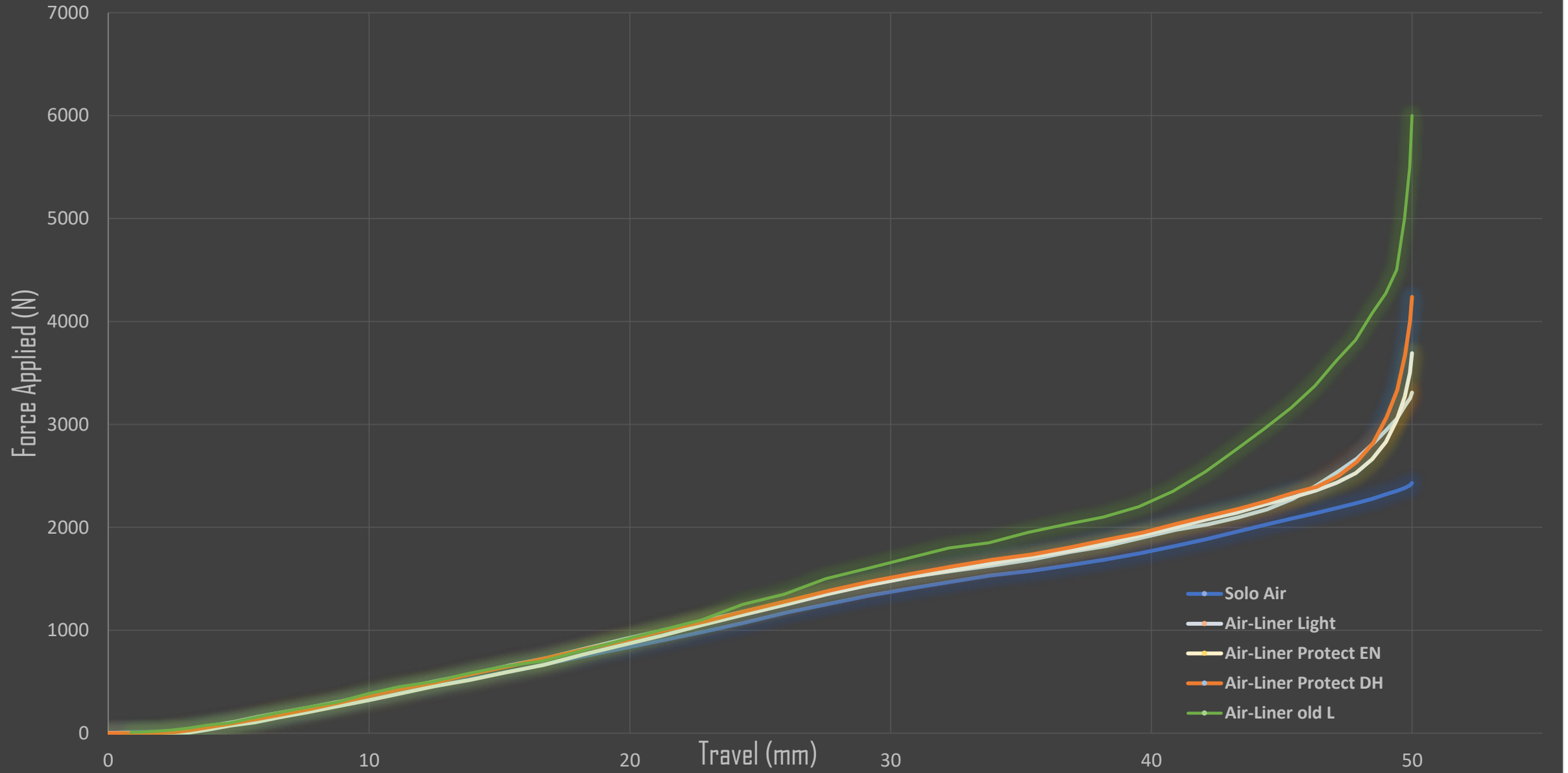
TEST SET-UP:

Tire: Vittoria Mazza Race 29"x2.4"

Inflating pressure: 1.5 BAR

Inner rim channel: 30mm

DYNAMIC COMPRESSION COMPARISON



Dynamic hysteresis test



VIOLET LINE

TUBELESS SYSTEM SET-UP:

Tire: Vittoria Mezcal 29x2.25

Inflating pressure: 1 BAR (14.5psi)

Insert: Air-Liner Light

Internal rim width: 30mm

Sealant: 60ml Vittoria Universal sealant

GREEN LINE

TUBELESS SYSTEM SET-UP:

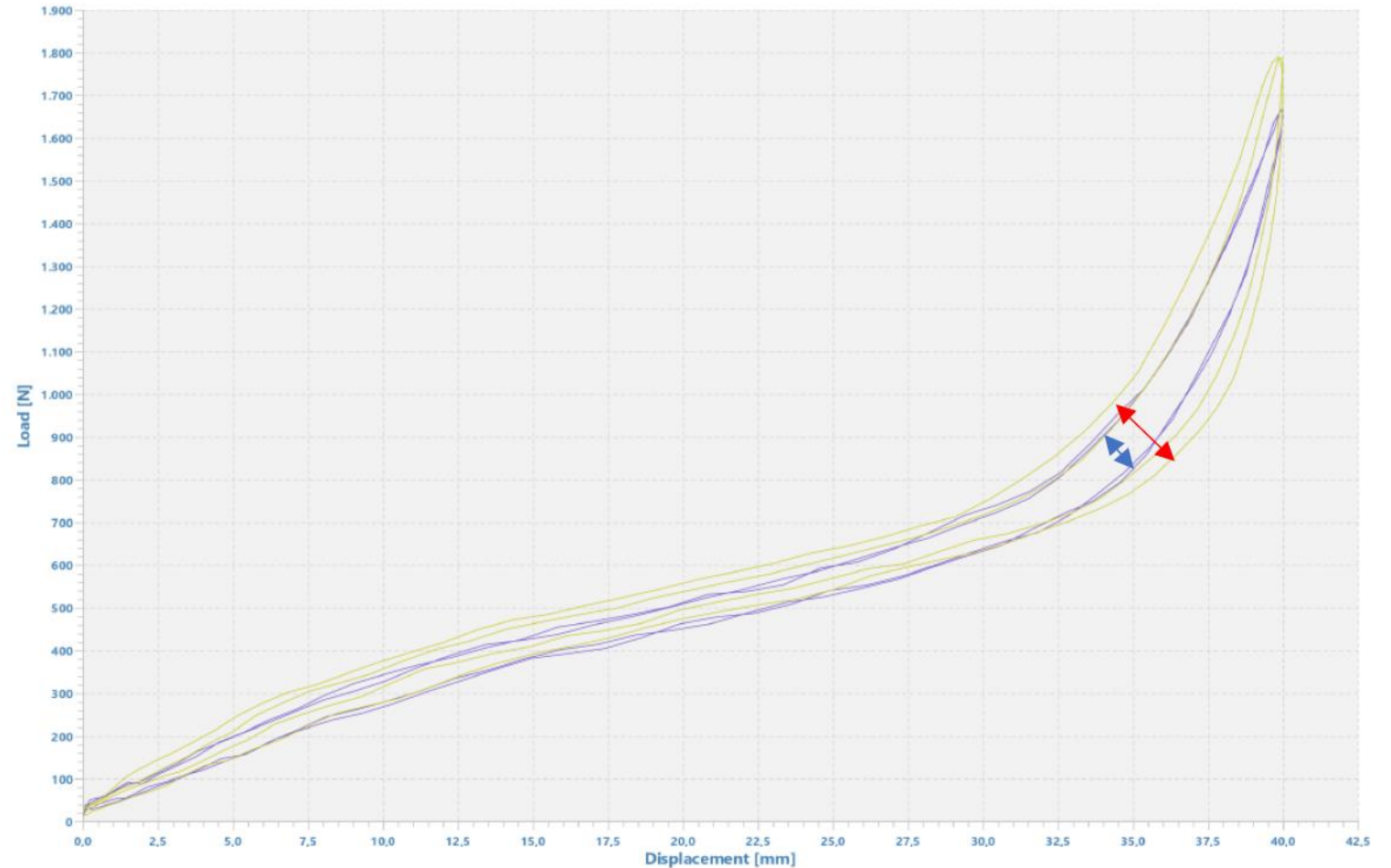
Tire: Vittoria Mezcal 29x2.25

Inflating pressure: 1 BAR (14.5psi)

Insert: Air-Liner MTB size Small

Internal rim width: 30mm

Sealant: 60ml Vittoria Universal sealant



Foam expansion and run flat support



Images captured with a stethoscope positioned inside of the tire





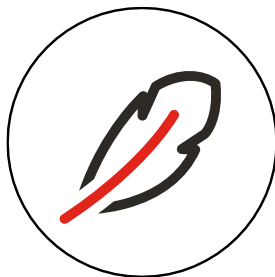
AIR-LINER
LIGHT
XC-TRAIL



Market segments and main characteristics

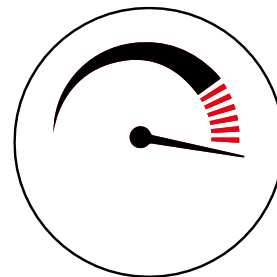


Road	AllRoad	Gravel	Cross Country	Down Country	Trail	Enduro	Downhill
			AIR-LINER LIGHT XC TRAIL				



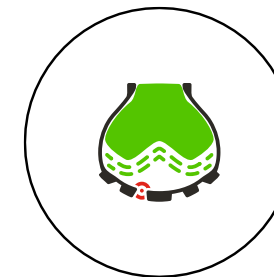
SUPERLIGHT

Only 55 grams! Imperceptible in acceleration, it keeps the handling of the bicycle agile and fast.



IMPROVE THE PERFORMANCE

Progressive tire compression. Change the riding dynamics. Improve grip, comfort and tire stability.



RUN-FLAT

In the event of a puncture, the expansion of the foam offers incomparable support and keeps tire beads on the rim.

Technical improvements



The two upper prominences were designed perpendicular to the edges of rim walls to increase the rim protection.

The outer concave profile maximizes the volume of the air inside of the tire and reduce the weight.

The lateral profile supports the tire sidewall and increase the lateral stability of the tire on high-speed curves.

The lower profile helps the tire beads retention reducing the tire burping.

The Vittoria Multiway valves allow the inflation and deflation of the system thanks to three lateral radial holes.

Performance improvements



LOWER PRESSURE
More grip, more comfort



RUN FLAT
Foam expansion in case of puncture

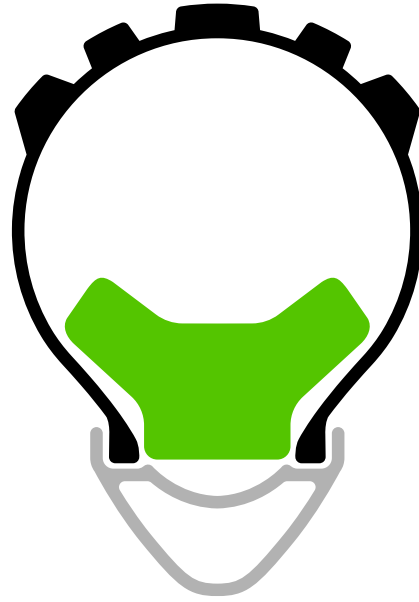


LATERAL STABILITY
Increased cornering support
Ride faster



PROTECTION
Save your rims from impacts
Reduce the risk of snake bite





AIR-LINER
PROTECT

ENDURO - DOWNHILL

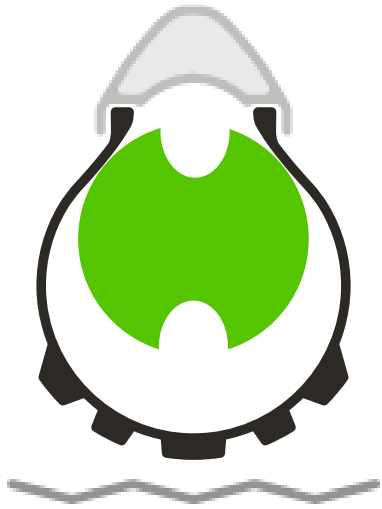




Vittoria
AIR-LINER
PROTECT BROWNHILL

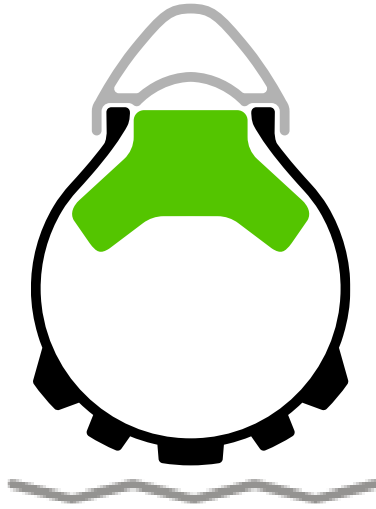
Vittoria
AIR-LINER
PROTECT ENDBURO

Target improvements VS old Air-Liner



*Previous
Air-Liner MTB*

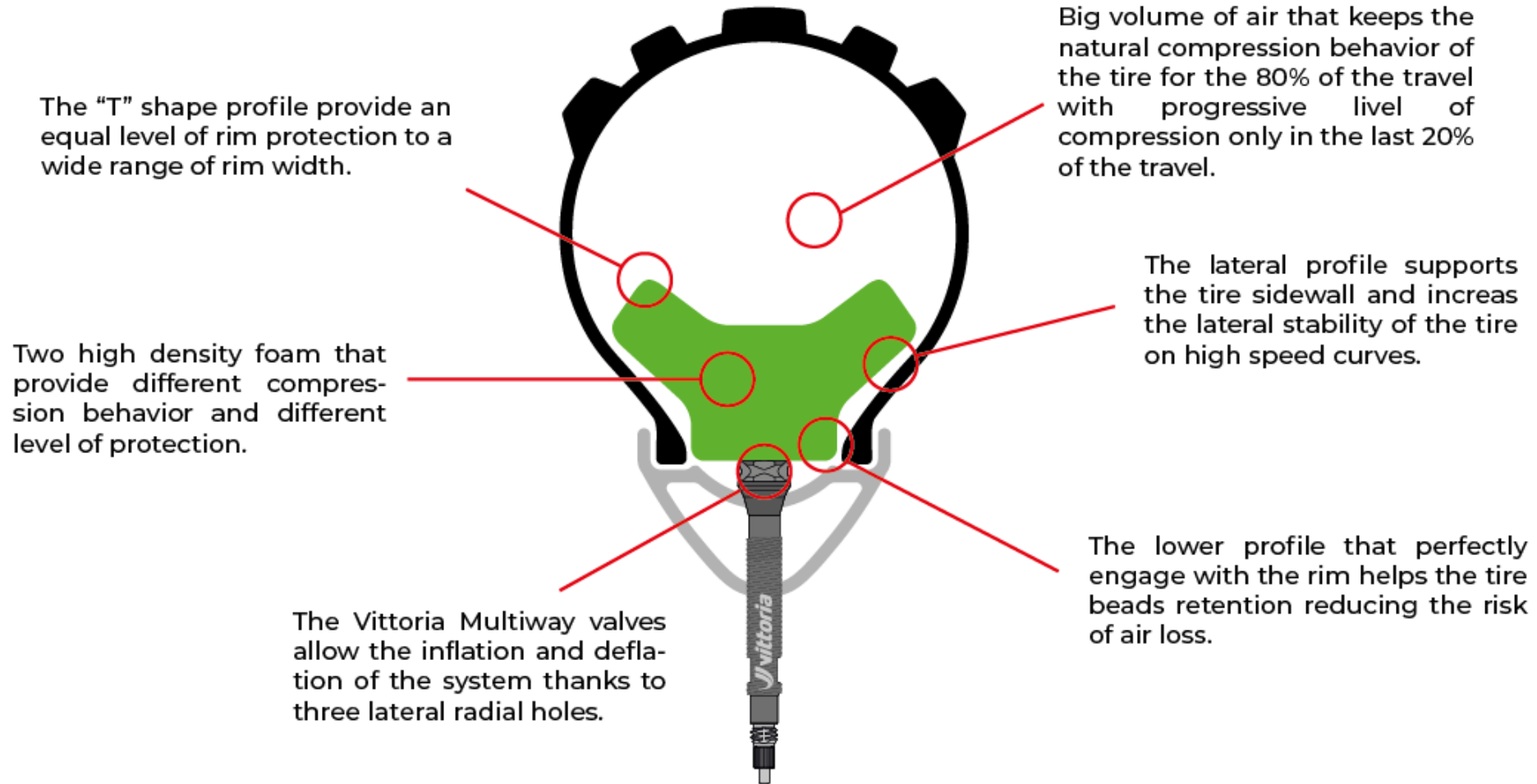
VS



*New Air-Liner
PROTECT
Enduro/Downhill*

- Provide a specific product for Enduro and Downhill racing
- Improve the natural riding feeling of the system
- Improve the rim protection
- Reduce the weight of the system
- Increase the air volume inside of the tire
- Increase the lateral stability and bead retention on the rim
- Reduce the rolling resistance
- Tuneable system

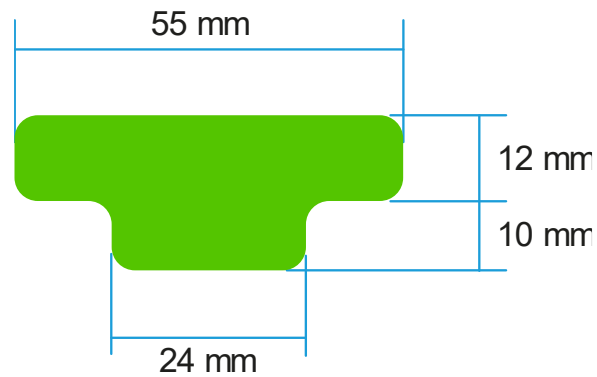
Technical improvements



Technical specification

PROFILE DESIGN

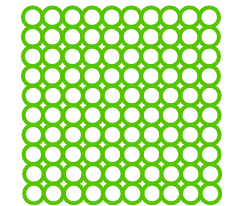
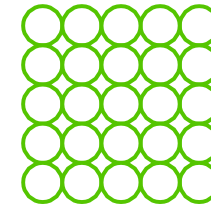
ENDURO DOWNHILL



European patented shape profile

FOAM SPECIFICATION

ENDURO **VS** DOWNHILL



Foam density:	Lower density	Higher density
Rebound:	Faster	Slower
Compression set:	Lower	Higher
High Speed Compression:	Lower	Higher
Weight:	125g - 135g	175g - 185g

AMORPHOUS FLUID MATERIAL

Faster the impact higher the protection level

Performance improvements

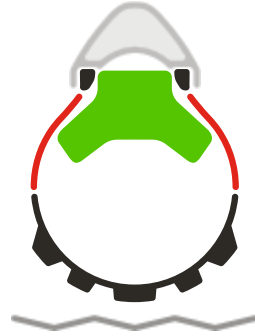
IMPACT PROTECTION



Save the rims from heavy impacts

Reduce the risk of snake bites

HIGH SPEED



Low impact on rolling resistance

Low hysteresis

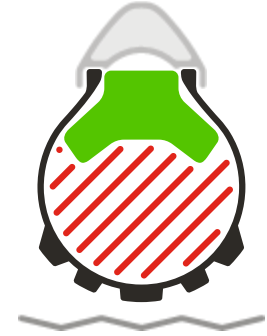
LATERAL STABILITY



Increased cornering support

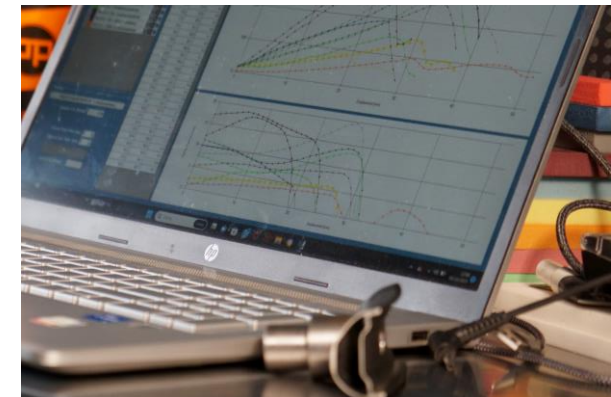
Approach the curves at full speed

BIG AIR VOLUME



Amazing natural riding feeling

More grip, more comfort



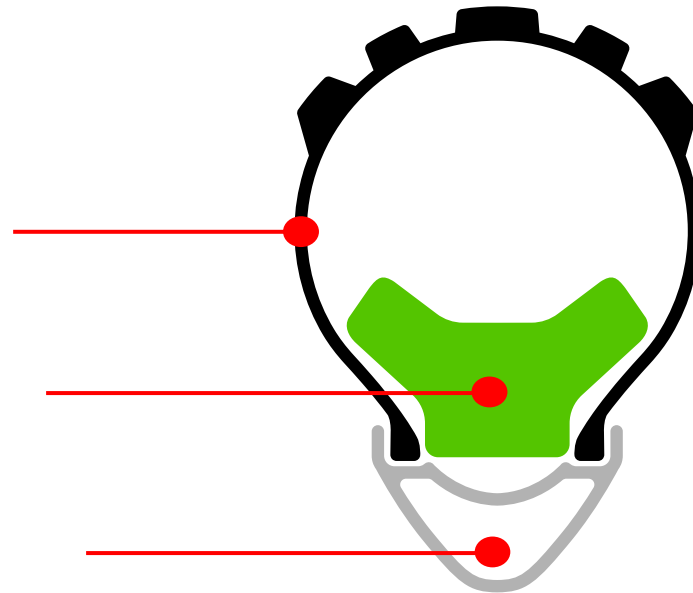
Market segment and tire compatibility

Road	AllRoad	Gravel	Cross Country	Down Country	Trail	Enduro	Downhill
						AIR-LINER PROTECT DOWNHILL	
						AIR-LINER PROTECT ENDURO	

Tire section: 2.35" to 2.60"

Inner rim channel: 25-35mm

Wheel diameter: 29" and 27.5"



SKU's:

- Air-Liner Protect Enduro 29"
- Air-Liner Protect Enduro 27.5"
- Air-Liner Protect Downhill 29"
- Air-Liner Protect Downhill 27.5"



E-Bike Approved

AIR-LINER Protect Enduro & Downhill overview

PERFORMANCE vs COMPETITORS:

ENDURO:



DOWNHILL:



PACKAGING:



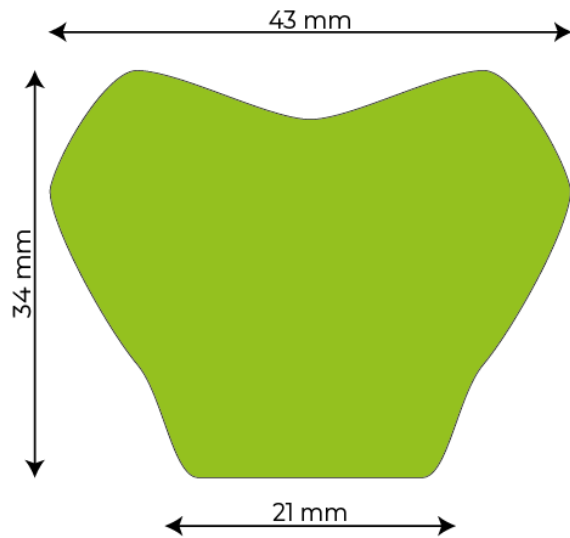
1x Air+Liner + 1x Tubeless Valve 40mm

AM Pack: 240x350xh70mm
Master carton: 730x365xh500 mm
Master carton quantity: 20pcs

vittoria **AIR-LINER** LIGHT
GRAVEL

AIR-LINER Light Gravel

PROFILE DRAWING:



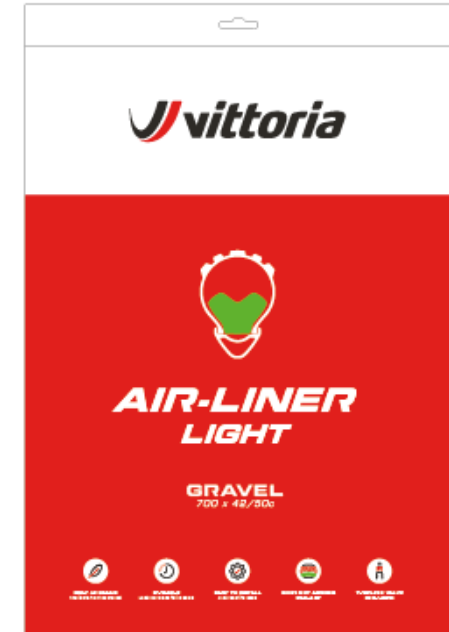
Low density foam
Monocompound

Rim: 700c and 650b
Tire section: 42/50mm

PERFORMANCE vs COMPETITORS:



PACKAGING:



1x Air-Liner + 1x Tubeless Valve 60mm

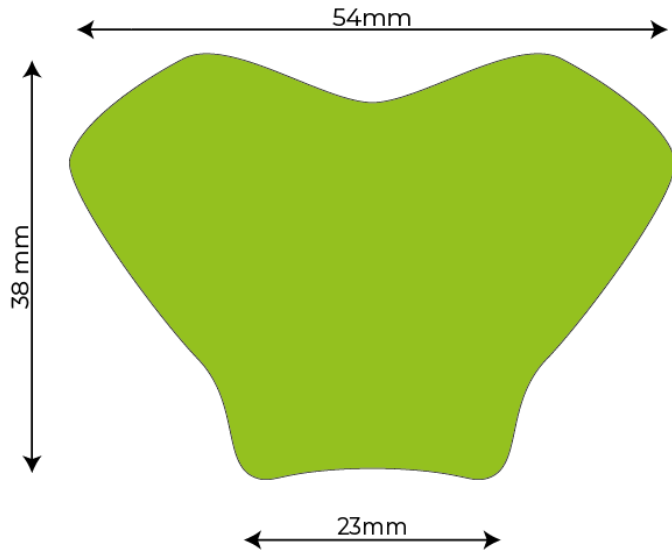
AM Pack: 350x480xh50mm
Master carton: 730x365xh500 mm
Master carton quantity: 14pcs

Vittoria **AIR-LINER**

**PROTECT
XC TRAIL**

AIR-LINER Protect XC Trail

PROFILE DRAWING:



High density foam
Monocompound

One size: 29" x 2.1/2.4"

PERFORMANCE vs COMPETITORS:



E-Bike Approved

Product suggested for Light E-Bikes

PACKAGING:



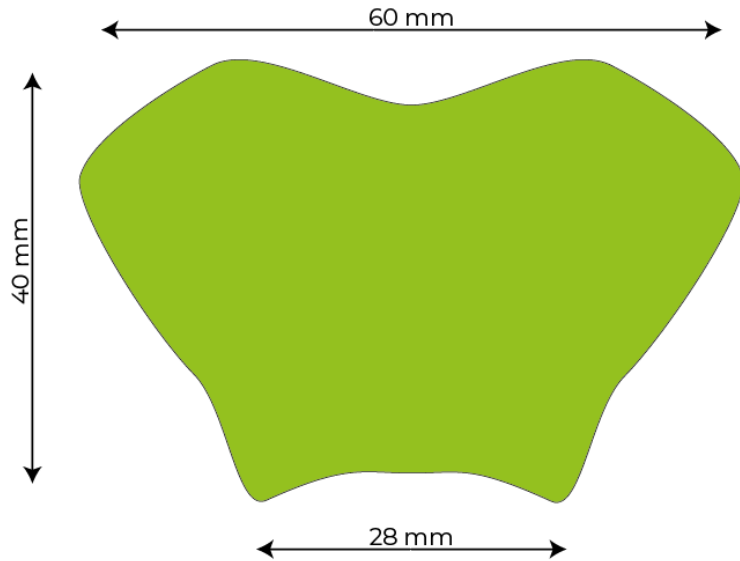
1x Air-Liner + 1x Tubeless Valve 40mm

AM Pack: 350x480xh70mm
Master carton: 730x365xh500 mm
Master carton quantity: 10pcs

vittoria **AIR-LINER** PROTECT
E-BIKE

AIR-LINER Protect E-Bike

PROFILE DRAWING:



High density foam
Monocompound

Two sizes: 29" and 27.5 x 2.4/2.6"

PERFORMANCE vs COMPETITORS:



E-Bike Approved

PACKAGING:



1x Air+Liner + 1x Tubeless Valve 40mm

AM Pack: 355x480xh70mm
Master carton: 730x365xh500 mm
Master carton quantity: 10pcs

AIR-LINER packaging lineup



All packaging designed to fit into AIR-LINER

Display

All AM packaging will be FSC certified

