

# ULTRA LIGHT WEIGHT PROTECTION



## TECHNOLOGY MAP PROTECTION MULTI-IMPACT ADAPTIVE POLYMER

### KEY FEATURES



ULTRA LIGHTWEIGHT



MULTI-IMPACT  
Protects against multi impacts



ULTRA THIN  
Thinner than comparable protectors with the same absorption

MARKER MAP PROTECTION is an innovative, closed-cell foam delivering multi-impact absorption. It was developed in cooperation with the University of Bologna, which provided scientific consulting for the entire process. The specific weight of MAP is extremely low compared with previous protective materials. Under normal conditions, MAP (Multi-impact

Adaptive Polymer) is pleasantly soft and flexible, ensuring freedom of movement and comfort. Upon impact, MAP begins to stiffen even while the strike is still happening, helping to absorb energy. Thanks to its multi-impact properties, the foam resumes its original form instantaneously, ensuring increased protection even against multiple rapid strikes.

Extensive scientific studies and testing have shown that MAP offers unique, outstanding impact absorption. This strong performance allows MAP pads and protectors to be used at thicknesses up to 28% less than required with other products. It goes without saying that MAP performs at a high level in all temperature ranges.

**MiAP** MINIMUM WEIGHT, INCREASED ENERGY ABSORPTION  
MULTI-IMPACT ADAPTIVE POLYMER

AWARD WINNING PROTECTION TECHNOLOGY

## MARKER OTIS TECHNOLOGY



OTIS stands for "Orthopedic Technology InSide" and focuses on sport-specific injury risks. It incorporates research insights into high-end products engineered to account for all anatomical, bio-mechanical and impact-

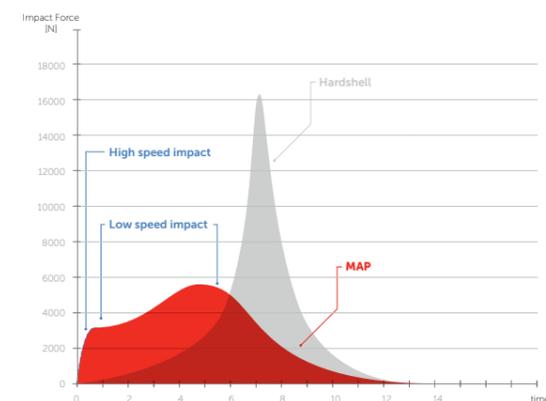
relevant aspects. A significant number of prototypes were run through a variety of lab and on-snow tests to enhance functionality and protection. OTIS delivers an optimal tailored fit, unrestricted freedom of movement and

increased protection for products and readily adapts to the individual dimensions of the athlete. OTIS serves as a seal of quality that distinguishes all high-end MARKER PSE models.

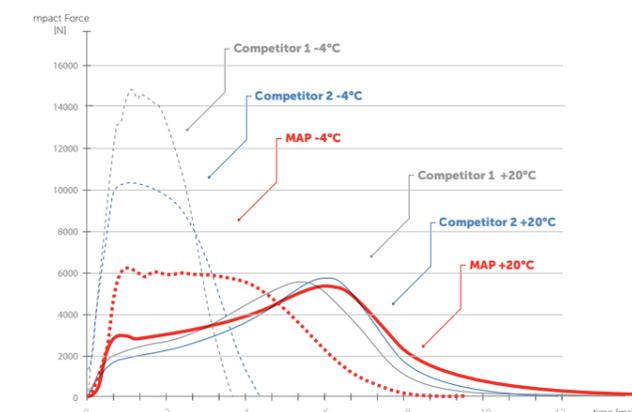


Main impact zones

### HIGHER ENERGY ABSORPTION OF MiAP COMPARED TO HARD-SHELL PROTECTORS



### INFLUENCE OF TEMPERATURE ON SHOCK ABSORBING PROPERTIES

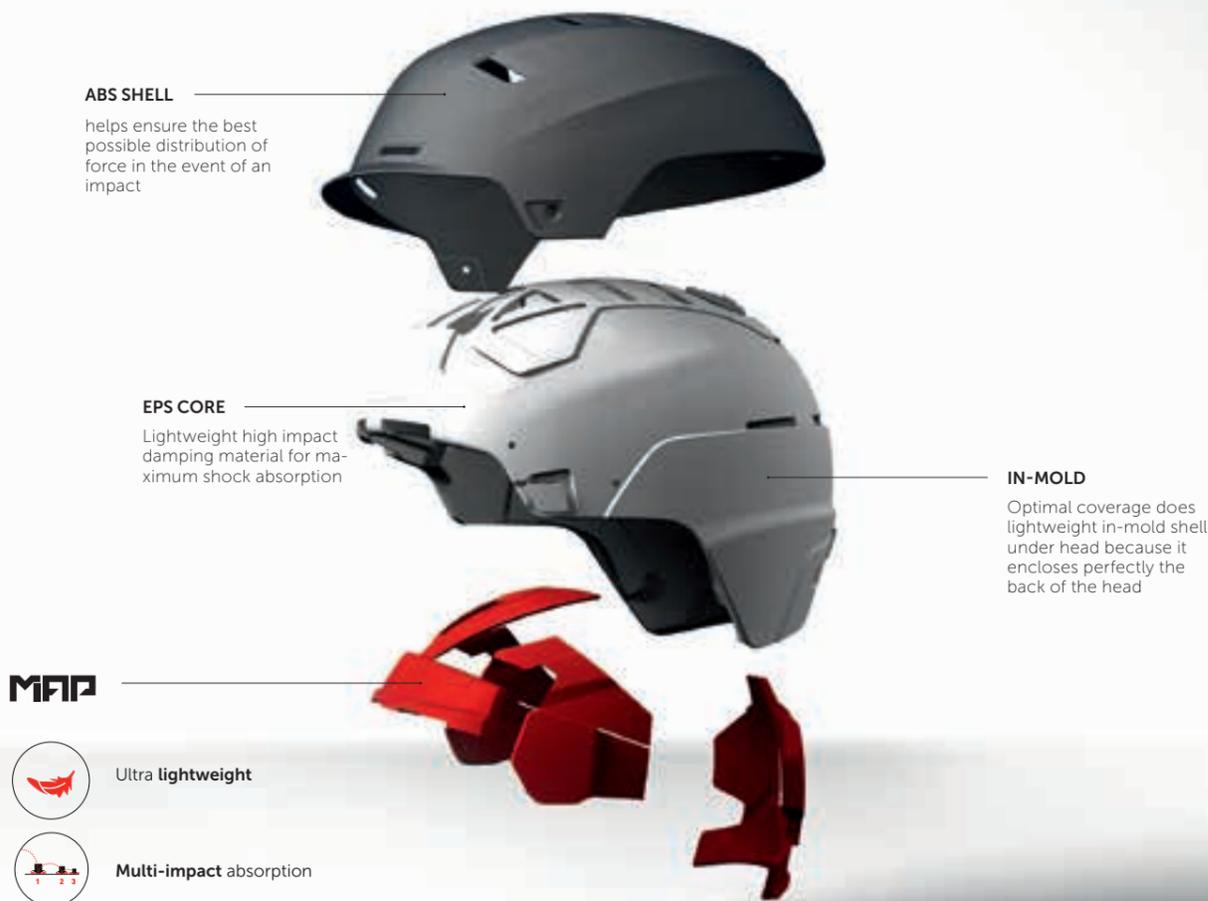


UNIQUE CLIMATE REGULATION

In a large-scale series of scientific testing, the researchers at the University of Bologna worked with a climate-controlled chamber to prove that MARKER MAP back protectors offer superior performance to competing protectors when it comes to maintaining the body's climate. Their studies demonstrated that material composition and shape have a decisive impact on temperature regulation, moisture levels and all-round well-being.

The experiments included test persons with sensors positioned on various spots on the body to measure the temperature and moisture levels. The result: MARKER MAP back protectors produced significantly better body temperature and relative humidity values underneath the protector than the other testing samples. The special honeycomb structure thus maintained a balanced climate and transported moisture away from the body as effectively as possible.



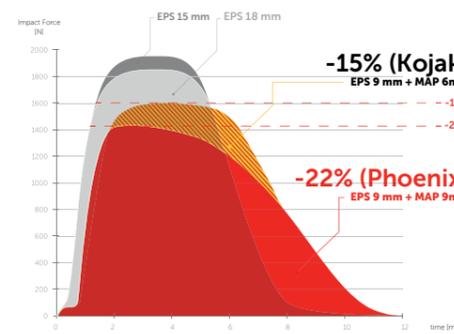


## HELMET OTIS SERIES

Clinical studies have shown that the rear of the head, the forehead and the temple areas have the highest injury risk levels during falls. The completely new MARKER MAP (Multi-Impact Adaptive Polymer) technology is being used for the first time in ski and board helmets to provide increased protection to these particular at-risk areas. This high-tech protective material helps absorb impacts much more effectively than other materials and is highly temperature independent. The technology even shields against multiple blows

in an extremely brief period, as MAP foam regains its original volume and shape within an extremely short span.

The new MARKER OTIS helmets feature extra-large MAP PROTECTION PADS located at high-risk spots to provide increased impact absorption. Skiers can take confidence in the protection of these products and comfort in their exceptional fit that caresses the contours of the head.



EPS with **MAP** pads reduce impact forces by 15-22% compared to regular EPS offers the ideal overall performance regarding impact force, weight and thickness

## GOGGLE OTIS SERIES



The new 3D+ OTIS features a 3 mm MAP layer over the entire contact surface to reduce the forces at play during a crash.



Highly **temperature** independent



Noticeably more flexible, promoting a fitted form and better wearing comfort

We believe that goggles can play a real role in helping to prevent injuries, and thus must be re-engineered to do more to keep skiers and boarders out on the mountain. Studies have shown that the cheekbones, nasal bone and eye sockets are frequent casualties during ski and snowboard accidents. These are, coincidentally, the areas directly underneath a pair of goggles. If properly equipped, goggles can help prevent the worst from happening. The new 3D+ OTIS includes a 3 mm MAP layer

all along its contact surfaces to dramatically reduce the forces applied to those areas during an impact. It works independent of the ambient temperature, is notably flexible and contributes to the unique custom fit and high level of wearing comfort.



## PROTECTOR OTIS SERIES



Ultra thin MAP material



**Multi-impact** absorption



Super **lightweight**



**Honeycomb-design** for best flexibility, fitting and extraordinary air circulation



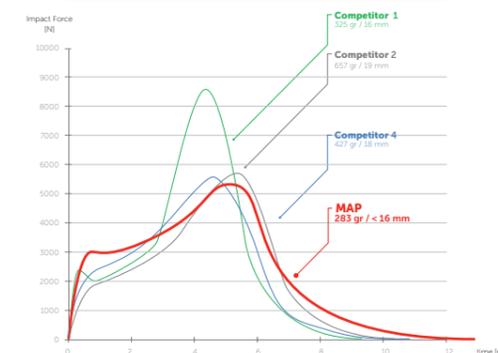
**Maximum freedom of movement**



The newly developed protectors naturally also follow the scientific Marker OTIS approach (Orthopedic Technology InSide).

Designed to satisfy orthopedic and safety-relevant concerns, Marker vests and shorts with MAP (Multi-Impact Adaptive Polymer) can rightly be called truly revolutionary. They provide effective, targeted protection for parts of the body most threatened by crashes while also ensuring maximum freedom of movement for active individuals.

Thanks to the unique MAP technology, the protectors are designed to be amazingly thin, with no bulkiness and extremely minimal added weight. The honeycomb design of the MAP keeps the protectors highly flexible and it is one reason why they adapt so perfectly to the contours of the body. It also promotes outstanding air circulation to prevent strong sweating and keep the climate balanced for the body. No protective clothing has ever been more comfortable to wear.



MAP offers the ideal overall performance regarding impact force, weight and thickness

### NEW: HYBRID OTIS

The brand-new HYBRID OTIS 2.15 Body Vest provides unheard of levels of impact absorption, wearing comfort and unrestricted freedom of movement. For the first time, we've combined three custom MAP layers of different stiffnesses and thicknesses in one highly flexible multi-layer construction. Each individual layer features its own individual properties harmonized to the specific requirements placed upon it: extreme energy absorption

and maximum dampening, top air circulation and temperature regulation and unparalleled flexibility. This entire system is more than just the sum of its parts, providing the highest level of protection available on the market. Because the individual layers of the sandwich construction are only linked to one another at their center points, each layer can slide independently during movement, optimally adjusting to the wearer's back as it twists and extends.



MARKER

## FEATURES & TECHNOLOGIES

### CONSTRUCTIONS



■ EPS  
■ ABS

#### ABS HARDSHELL CONSTRUCTION

The ABS HARDSHELL CONSTRUCTION involves a light EPS core for impact absorption and an ultra-thin but rigid ABS outer shell. It has been specially engineered to fit the EPS core, completely enveloping it in a physically durable shell. This helps ensure the best possible distribution of force in the event of an impact. The rugged ABS surface is also resistant to scratches and dents – so this lightweight helmet will still look great even after many days of hard use.



■ EPS  
■ Polycarbonat

#### IN-MOLD CONSTRUCTION

Extra light and world-class quality: MARKER IN-MOLD helmets feature an extremely stable construction, formed under heat by compression molding an impact-resistant, rigid EPS core into a durable polycarbonate shell. This ensures an inseparable bond between the shell and the high impact dampening material. Additional polycarbonate outer layers in the lower parts of the helmet offer greater stability and protection. Because they are so light, IN-MOLD helmets are comfortable like no others.



■ EPS  
■ ABS  
■ Polycarbonat

#### HYBRID SHELL CONSTRUCTION

The best of both worlds: the HYBRID SHELL CONSTRUCTION combines the weight and comfort advantages of IN-MOLD technology with the robustness of the hard shell construction. In the event of a crash, the hard shell is not just highly durable, but also distributes the pressure across its surface. The extra-light IN-MOLD shell for the lower head wraps around the entire rear of the head to provide optimal protection. The final product is a premium helmet featuring state-of-the-art technology, a low total weight, outstanding comfort and an ABS outer shell for maximum durability, top ventilation and a fine look that will remain attractive even after hard use.

## MARKAIR CHANNEL VENTILATION SYSTEM



#### MARKER HELMET/GOGGLE INTEGRATION

Helmet and goggles must fuse together perfectly to work as one optimally functioning unit. To achieve this, MARKER products are 100% harmonized with one another. All helmets and goggles are designed to precisely tune into the shape of the other item and harmonize with its lines. This perfect adaptation is a requirement for optimal aerodynamic performance by helmet and goggles. The MarkAIR Channel ventilation system on the helmet, combined with the MarkAIR VENT SYSTEM on the

goggles, ensures top performance and air flow. The ingenious system for air intake and outlet vents, combined with a network of channels in the helmet, reduces significantly goggle fogging and allows the wearer to customize the air circulation. The result: the temperature within the helmet is appropriate for both the exterior temperature and skier exertion levels.

#### MARKAIR CHANNEL VENTILATION SYSTEM - CLEAR VISION AND A COOL HEAD

The complex MarkAIR CHANNEL SYSTEM, used in all MARKER helmets, is the most advanced temperature regulation system available. It consists of a precisely calculated network of vent openings and air channels to combine the ventilation of the outer shell with interior channels of the EPS foam core. This allows the MarkAIR CHANNEL SYSTEM to literally "draw" the warm, moist air out of the goggles, "sucking" it along the air channels and out of the helmet to reduce significantly any fogging of the goggles. At the same time there is a constant and pleasant flow of air to cool the entire system and regulate it automatically. This ensures a cool head whatever the situation, without need for manual adjustments.



#### 2 POSITION CLIMATE CONTROL

The ventilation within the helmet can be controlled using the adjustable 2 POSITION CLIMATE CONTROL (partially or fully closed). This works even with gloves on and while in motion! Move the slider to control the air volumes to match your own personal warmth preferences. Naturally the MarkAir CHANNEL SYSTEM will assist keeping your head warm and dry even if the controls are fully shut. When fully opened, the special vent design prevents the head from growing chilled.

#### AIR JAM CLIMATE CONTROL

The AIR JAM CLIMATE CONTROL allows for regulation of the air flow using a waterproof, folding interior lining. When the openings are closed, they provide a warm and dry air cushion that is especially helpful in keeping the head from getting chilled on cold days. On warm days the vents can be unblocked to generate maximum airflow within MarkAir CHANNEL SYSTEM.



HELMETS FITTING SYSTEM

**RTS FIT SYSTEM**

Rotate to size – there's no simpler way. The three-point construction on the rear of the head adapts to your personal head shape in seconds thanks to the adjustment dial. This translates not just into top wearing comfort, but also into a perfect yet pleasant fit. During a crash you want a helmet that sits just right and won't slide around, giving your head true protection.

**RTS YOUTH FIT SYSTEM**

An adjustment dial mechanism on the rear of the helmet lets you adapt it to your personal head shape in seconds. For greatest possible wearing comfort, a tight fit and heightened protection. One-handed operation, even with ski gloves on. Broad configuration range, so this helmet will grow along with the wearer!



**FIDLOCK OG SNAP**

The revolution for helmet closures – extremely convenient to operate. The FIDLOCK OG SNAP is the first magnetic safety closure with a slider mechanism that can be opened and closed with one hand. This helps ensure an extremely secure hold in the event of a crash, yet can be operated very quickly even while wearing a ski glove and is designed to guard against pinching your skin.

**GOGGLE SAFETY LOCK**

No slipping of the goggle strap, because the GOGGLE SAFETY STRAPS hold the goggles firmly against the helmet. Even if you push the goggles far back on your helmet, such as while on a lift, there's no chance of them getting lost as long as the lock is closed.



LINING



**XDRY PERFORMANCE LINING**

Technical performance lining that ensures optimal thermal efficiency. The textured material insulates against cold and, in the event of excess heat, the air is transported to the exterior. Beyond this, moisture is wicked outwards to prevent excessive sweating. Features: quickly removable and hand-washable in lukewarm water.

**VOLUME FLEECE**

Developed especially for women as an extra-warm, fluffy fleece that is solely used in the CONSORT WOMEN. It increases wearing comfort and prevents the head from growing chilled. Removes quickly and hand-washable in lukewarm water.

**XDRY FLEECE LINING**

High-quality, lightweight and fluffy fleece interior lining for pleasant warmth and a dry helmet interior. As you'd expect: Removes quickly and hand-washable in lukewarm water.

**EDGE PROTECTION**

All Marker IN-MOLD and HYBRID SHELL helmets have an additional polycarbonate plate on their lower edge for extra protection in the event of a side impact. This also protects the helmet against dings and dents during transport or daily usage. The various models come with 180°, 270° or 360° EDGE PROTECTION.



PARK TECHNOLOGY

**BEANIE READY**

Like skiing with a beanie under your helmet – or sometimes with, sometimes without? BEANIE READY means that you can remove the lining from your helmet quickly and easily, and replace the lining with your beanie. The helmet has no annoying Velcro enclosures that could damage your hat!



**PSE GOGGLE CLIP**

Absolutely stylistic and functional goggle clip to secure the goggle band. Easy and simple to replace or remove. When the clip is removed, the PSE DISC protects the thread and keeps it free from ice and snow.



**REMOVABLE EARPADS – AUDIO READY – NATURAL AUDIO REGULATION**

These removable earpads were designed with ergonomics in mind, and deliver a comfortable fit and excellent thermal insulation. If at any point you want to be able to hear your surroundings unfiltered, then the NATURAL AUDIO REGULATION system lets you remove the inserts without further ado. All ear pads (excluding KOJO) are of course also AUDIO READY – compatible with all current music players and smartphones. Both earpads remove quickly and easily and can be washed in luke-warm water.

