

## **EXFIL™ Carbon Helmet and Considerations Against the Ops-Core® FAST Carbon Helmet**

### **Impact Protection:**

The EXFIL™ Carbon is available with two liner options:

#### **TPU Hybrid Liner**

The first liner option is the TPU Hybrid that was largely developed under the U.S. Army Natick Soldier RD&E Center HEaDS UP program. This liner utilizes a series of patented thermoplastic urethane (TPU) structures optimized for impact protection in combination with a TPU crown sling. This allows for superior airflow and ventilation by creating standoff between the wearer's head and the helmet shell, and the TPU is resistant to wear and environmental extremes. This option exceeds current ACH Blunt Impact Protection requirements, maintaining 100% of ACH level 10ft/sec impacts below 150G, with an average below 65G across all impacts, conditions, and helmet sizes. Additionally, the highest recorded acceleration in testing of both sizes is only 103.7G (testing report available upon request).

#### **Zorbium® Foam Liner**

This liner option utilizes the same Zorbium® foam that has been proven in the standard ACH ZAP 7-pad system. The Liner comprises a 3-piece impact liner with removable center channel to better accommodate overhead communication headbands, and a series of adjustable comfort pads using an antimicrobial wicking fabric. This liner option in conjunction with the EXFIL™ Carbon shell has been independently tested to the requirements of EN1385 standard for whitewater helmets. This standard has direct crossover to military applications, as it was developed to prevent concussions that can lead to drowning risks in water. For military use this translates directly to maintaining consciousness and situational awareness following impacts to the head. EN1385 uses a 250G maximum acceleration threshold and states "the levels of protection recognize that most fatalities in canoeing and white water sports result from drowning after concussion..." In addition to providing impact protection, EN1385 also carries requirements for retention system strength and retention system effectiveness – further ensuring wearer safety.

While both liner options have been designed specifically for the goal of minimizing injuries that may result in loss of consciousness, this also provides an inherent capability to mitigate impacts that may lead to more severe injuries.

### **Accessory Mounting:**

The EXFIL™ Carbon provides mounting options for nearly every common head borne accessory. Therefore, virtually all existing accessories such as lights, oxygen masks, and communication systems setup for mounting to OPS-CORE helmets will continue to be compatible with the EXFIL™ Carbon. In a few cases an additional adapter is required, often included from the original accessory manufacturer (e.g. Princeton Tec picatinny mounts). In addition, our Rail 2.0 system was designed to also allow mounting via the upper and rear t-slots using common hardware. This provides the added benefit of custom mounting options in the field or when proprietary mounts (such as those for the OPS-CORE ARC rail) fail or are not readily available.

### **Shroud:**

The EXFIL™ Carbon comes pre-drilled to the standard MARSOC/WARCOM 3-hole pattern, making it compatible with all common night vision shrouds and mounts. The W-Shroud made by Wilcox Industries specifically for the EXFIL Carbon utilizes a machined, anodized aluminum mount interface that is insert-molded in a polymer frame for a balance of strength, precision, and weight-savings compared to other cast or forged aluminum shrouds like the OPS-CORE VAS and Skeleton Shrouds.

### **One-handed Fit Adjustment:**

The EXFIL™ Carbon utilizes our CAM-FIT™ retention system, implementing a Boa® closure that conforms to the shape of the head, unlike the rigid headband in the FAST Carbon. This system is also designed to give enhanced stability when wearing night vision by pulling the head forward, rather than simply encircling the head which can lead to instability by causing a gap at the front of the helmet.

### **Sizing range:**

The EXFIL™ Carbon provides an increased sizing range compared to the FAST Carbon, facilitating head sizes 6 7/8 (55cm) to 7 3/4 (63cm) with 2 sizes (Size 1 and Size 2). The FAST Carbon fits only up to size 7 5/8 (61cm) across 3 sizes.

For additional information please visit [teamwendy.com](http://teamwendy.com)