

## Sean Humphrey, Lead Design Engineer/Founding Partner Ben Anderson, Chief Financial Officer/Founding Partner

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## **Specifications Sheet: FP CARRIER VEST (MKI-PROD. MODEL)**

Manufacturer: Spartan Armor Systems

Carrier Type: Low-Profile, High Mobility, Industrial Grade, NON-BALLISTIC/ STAB RATED

Color: OSHA/ ANSI Compliant Orange or Yellow-Green on Main Carrier Body and Black

Retention Straps with Black Hook and Loop Fastener Material

Insert Style: Bottom-loading Design Supports Two FROSTPLATES in the Front and Back

**Pockets** 

**Retention Style:** 4" Fully Adjustable Elastic Cummerbund w/ 2" Low Profile Shoulder Adjustment to Accomodate Wearers between 5'3 and 6'6 in height and 110-290lbs in Weight.

**Material:** 900D Nylon (Which Exceeds current Law Enforcement and Military Standards in Vest Construction), Denier Nylon/Pu, Nylon Webbing, 3M Reflective Material, Mil-Spec Hook and Loop Fastener Material

**Size:** 11.4" X 12.5"

**Features:** Integrated, Elastic Tool Clip Sleeves and Loops For Tool Hangers (2 On Each Side), Integrated 3mm Thick Thermal Insulation in Outer Front Plate Pocket Sleeves.

The Kool Copz LLC. FROSTPLATE CARRIER VEST aka FPCV is a high mobility, low profile unit designed to accommodate a full range of outdoor work and recreation activities when equipped with one to two FROSTPLATEs. This vest was specifically designed and engineered out of materials that would meet or exceed military, law-enforcement and commercial-industrial grade product standards in textiles and sewing and offer maximum versatility and fitment to a wide range of users and body types. The FPCV is made for Kool Copz LLC by Spartan Armor Systems, a USA based company that is widely regarded as an industry leader in body armor systems and vests in North America. Special care was taken in the color selection for the FPCV as the primary body of each vest is colored in OSHA/ANSI compliant Orange or Yellow-Green. Each unit is clearly marked with the Kool Copz LLC logo in a large diameter on both the front and back of each vest, in 3M reflective material in order to afford high visibility in lowlight/ night conditions, further increasing the wearer's safety. The FPCV is intended for use by people ranging between 5'3 and 6'6 in height and with body weights ranging from 110lbs to 290lbs. The FPCV is suitable for both male and female users and is recommended to be worn over a single or double layer of thin to medium thickness garments for maximum cooling. The FPCV should be cleaned by hand washing in warm water with a mild soap and plastic bristle brush, rinsed and hung-up to air dry. Recommended replacement interval for the FPCV is three years.



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## **Specifications Sheet: FROSTPLATE (MKIII-PROD. MODEL)**

**Hull Composition:** Chevron Technologies HXM 50100 High Density Polyethylene w/ Pantone 151C (Orange) ANSI/OSHA Compliant Color Additive

Hull Dimensions: SAPI Standard Medium Strike Face Size: Height 12 Inches, Width 10 Inches,

Depth 1 Inch w/ 12, 1/8th inch Raised Ribs on Backside of Plate

Hull Thickness: 0.090 or 3/32nd Inches

Hull Internal Liquid Volume: 1.3 Liters or 43.9 Fluid Ounces

Stopper Composition/ Dimensions: N66 Nylon w/ Diameter of 1/2"-18, Threaded, Length .50

Inch w/ Female Hex Head

Stopper Sealant Adhesive: VPC-60 Rubber Based Compound

Coolant Material: Freezable, Non-Toxic, Food Grade Proprietary Gelatin w/ Manufacturer

Recommended Replacement every 3 Years

Weight of Single Assembled FROSTPLATE: 4.3lbs (approx.)

Product Temperature Data and Wear Specifications: Data collected from MKII prototype field testing illustrated that the FROSTPLATE, from completely frozen (8F Average), if properly installed within a ballistic kevlar lined carrier vest or FROSTPLATE Carrier Vest will stay below 70F for approximately 5 hours against the wearer's body in direct sunlight, at an average external ambient temperature of 106F with an 15-20% average humidity index. The FROSTPLATE will remain below human body temperature (98.6F) for approximately 7 hours of wear under the same outdoor conditions. The FROSTPLATE is not a substitution for normal hydration, nor is the FROSTPLATE or KOOL COPZ LLC Insulated Carrier Vest ballistic/ stab rated. If the wearer finds the FROSTPLATE to be too cold or uncomfortable at the time of initial installation and wear, KOOL COPZ LLC recommends the wearer to loosen the retention straps at the abdomen section of the user's carrier vest, to alleviate direct cold thermal transfer to the body, or to wait to wear the FROSTPLATE for ½ hour (or until maximum comfort is determined). This shall allow the FROSTPLATE temperature to rise slightly, and to be more comfortable. Proper attention to perceived feel will eliminate any potential cold related injuries or discomfort. It should be noted that higher humidity levels will increase the amount of condensation produced by the FROSTPLATE. Raised, 1/8th inch high ribs on the body-side of the FROSTPLATE were added to help disperse unwanted condensation build-up and aid in air circulation between the body-side of the FROSTPLATE and inner carrier pocket wall and body. KOOL COPZ LLC recommends you regularly wipe down your FROSTPLATE between

uses and hand-wash your plate carrier in warm water with mild detergent and a plastic bristle brush as needed, to mitigate dirt, grime, body oils or odor build-up.