

ProApto is an Italian-rooted brand formally established in 2015. ProApto specializes in the production of three-dimensional and multispectral individual camouflage (VIS - NIR - TIR).





PATENTED I.P.

ProApto holds the first and the only Italian patent in matter of Multispectral Camouflage (VIS-NIR-TIR). Object of protected intellectual property are: 1) the multispectral textiles, 2) product designs, 3) eighteen proprietary 2D camouflage patterns, and 4) twelve proprietary 3D camouflage patterns.

ProApto's patent after international examination has been recognized as **technologically and industrially novel on a global scale.**

MULTISPECTRAL CAMOUFLAGE



ProApto Multispectral Camouflage offers **simultaneous protection** in the optic (VIS) portion of the electromagnetic spectrum and in the whole infrared extension. From NIR and SWIR up to MWIR and LWIR wavelengths. It ensures exceptional effectiveness in the visible and NIR ranges while providing seamless **thermal signature management**.





MULTISPECTRAL FABRIC **SPECS.**

ProApto multispectral camouflage is based on patented technology, with the following features:

- thickness: from 0.1 mm to 0.5mm
- weight: from 100gsm to 350gsm
- **opaque** (not shiny appearance)
- low water retention (max 30%)
- **breathable** and **not insulating**
- **amphibious** (washable with **no decay**)
- endless shelf-life (**no expiry date**)
- no release of toxic nano-particles

3D PATTERN EFFECTIVENESS

ProApto Multispectral Camouflage can be produced with the addition of n.12 **3D VIS-NIR camouflage patterns**, as to enhance the VIS and NIR camouflage effectiveness (crucial aspect too often overlooked in matter of thermal camouflage).

The n.12 3D camouflage patterns range from natural fibers like Jute and Raffia to waterproof polymeric alloys.





LIGHTWEIGHT SOLUTION

ProApto individual multispectral camouflage (VIS - NIR - TIR) is lightweight and easily transportable across long distances and transitions.

The individual counter-thermal systems as full body coverage ranges between 1.6 kg and 3.6 kg of weight (on average 2.2 kg) and is packable in a 25 x 20 x 35 cm bag.

A multispectral Poncho, on average, weighs between 900 gr and 1.6 kg.

NIR COLOURS

ProApto Multispectral Camouflage has a Near-Infrared Reflectance (NIR) consistent with the intended environment of use. This results in extremely effective night vision camouflage even at very close range for both ProApto 2D and 3D elements. Even when the camouflage is irradiated by IR lasers and illuminators, it remains effective without unwanted reflections (uncommon for the vast majority of military clothing).



AMPHIBIOUS USE



Since ProApto multispectral camouflage **does not decay with time and water** (as the vast majority of multispectral camouflage), it is suited for amphibious uses and operations, ranging from static observation to amphibious reconnaissance. ProApto individual multispectral solutions ensures stable and **long-lasting concealment for the operators**. The same item can be used effectively from the sea to the alps.

MODULAR DESIGN

ProApto Multispectral Camouflage solutions are designed as **modular and multipurpose systems**. The operator can choose whether to use a full-body coverage or a partial coverage, depending on the operational needs. For example, the hood can be removed from the Poncho or the Ghillie Suit and used independently. In the same vein, limb covers can be worn or used to conceal optronics and firearms.





REVERSIBLE CAMOUFLAGE

ProApto multispectral camouflage is designed to be double sided camouflage. All camouflage solution can be reversible displaying different 2D (VIS-NIR-TIR) camouflage per side. Each side is designed to match a specific cluster of biomes and therefore features different multispectral properties across the VIS-NIR-TIR wavelengths.

This feature doubles the value of each item and maximize adaptability.

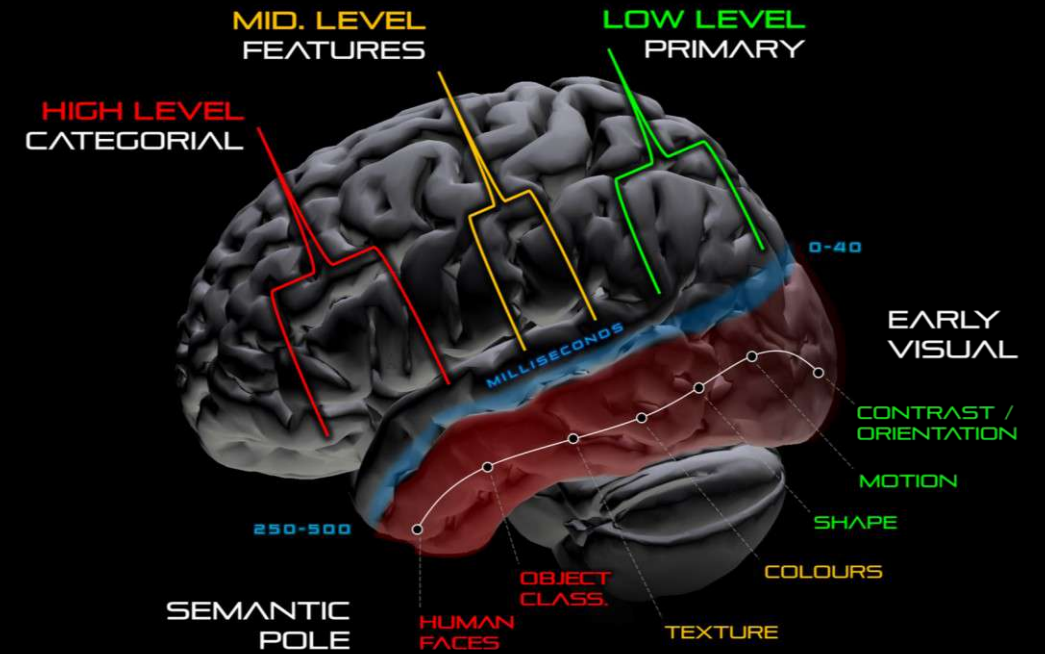
VEGETATION APPLICATION

All ProApto products allows the application of vegetation and or 3D elements. Both multispectral ponchos and Suits feature multiple anchor points (over 60 per item) that can be used to secure local vegetation or various kind of 3D elements.

Application of vegetation is a crucial aspect in camouflage discipline and in matter of multispectral thermal camouflage is not considered by any other company.



NEUROSCIENCE BASED



ProApto camouflage is designed to interfere at neural level with the neuropsychological processes of object construction and identification.

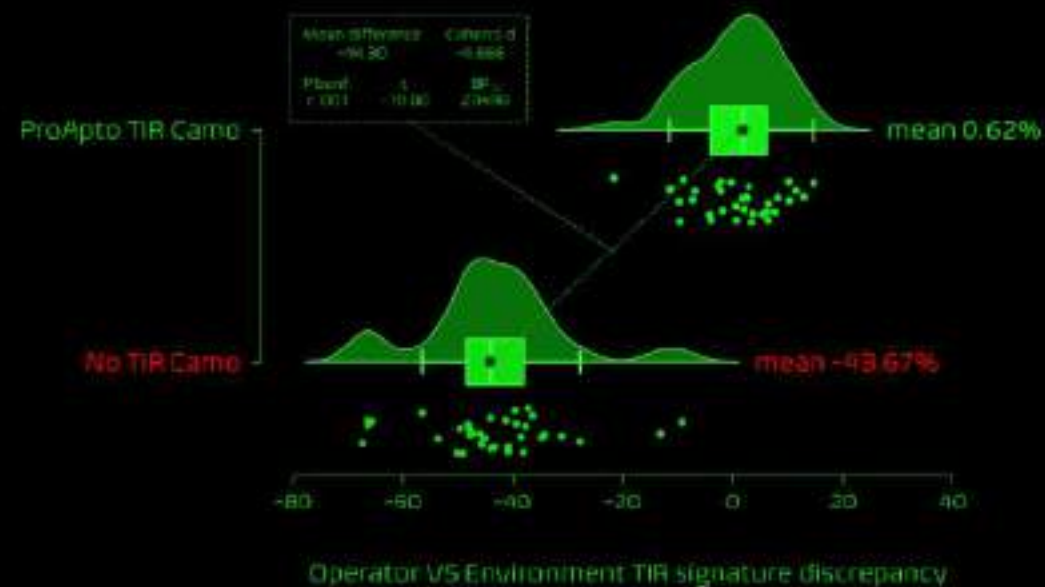
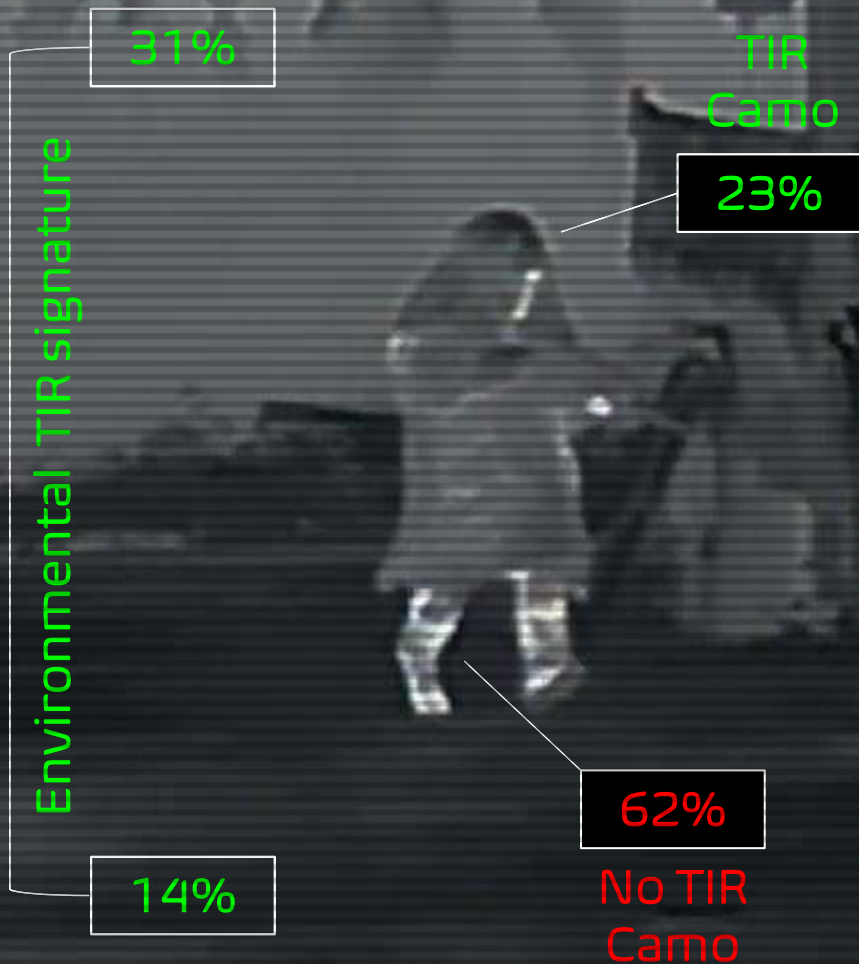
COUNTER THERMAL

ProApto Multispectral Camouflage (VIS-NIR-TIR) is the answer to the global proliferation of thermal sensors and the escalating use of recon and FPV drones. ProApto thermal camouflage is modular and ergonomic, and **it does not insulate the user**, avoiding heat casualties.

ProApto thermal camouflage is the **most tested, documented and effective thermal camouflage worldwide.**



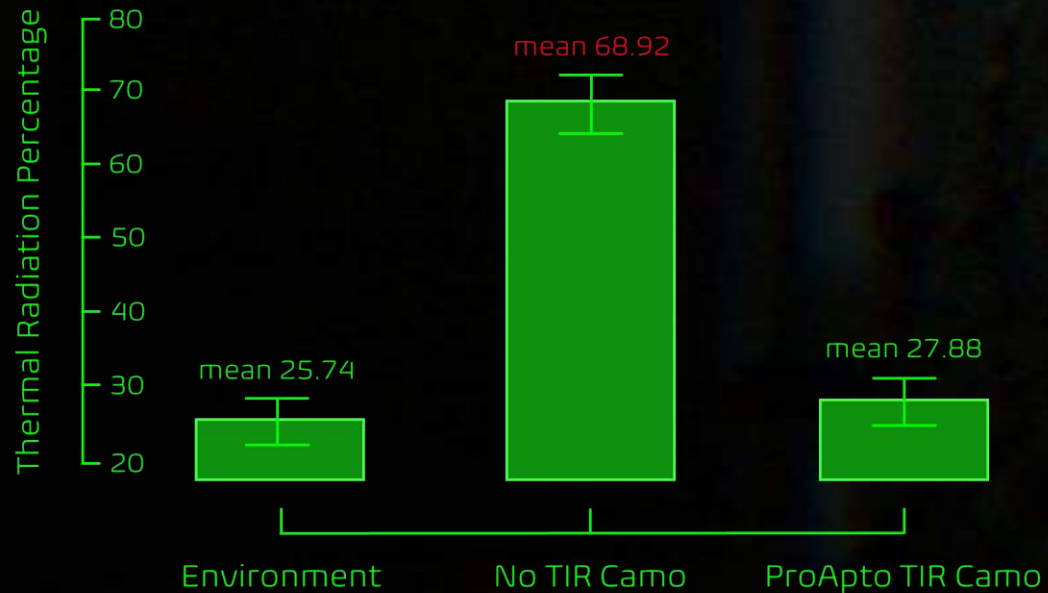
DATA ANALYSES



ProApto camouflage significantly reduces the operator's TIR signature tuning it around 0.6% (+/- 8%) of discrepancy from the environment's TIR signature.

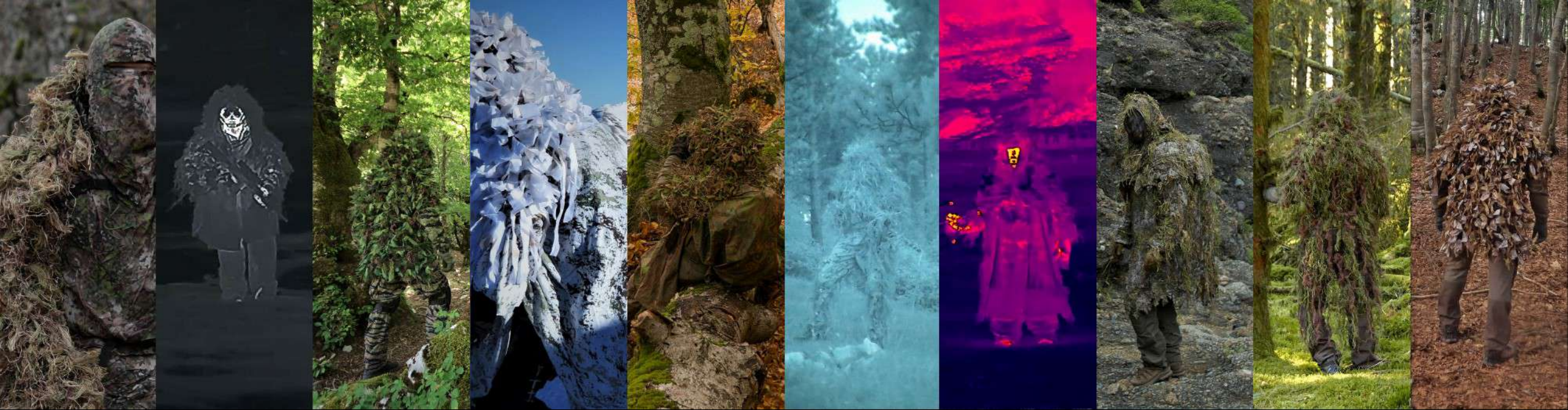
IMAGE ANALYSES

Using inferential statistics and Bayesian modelling, academic researchers analysed that ProApto TIR camouflage has a statistically significant effect in tuning human thermal signature to the surrounding environment (both natural and urban).



AS ABOVE, SO BELOW





LARGEST WORLDWIDE CHOICE OF MULTISPECTRAL CAMO

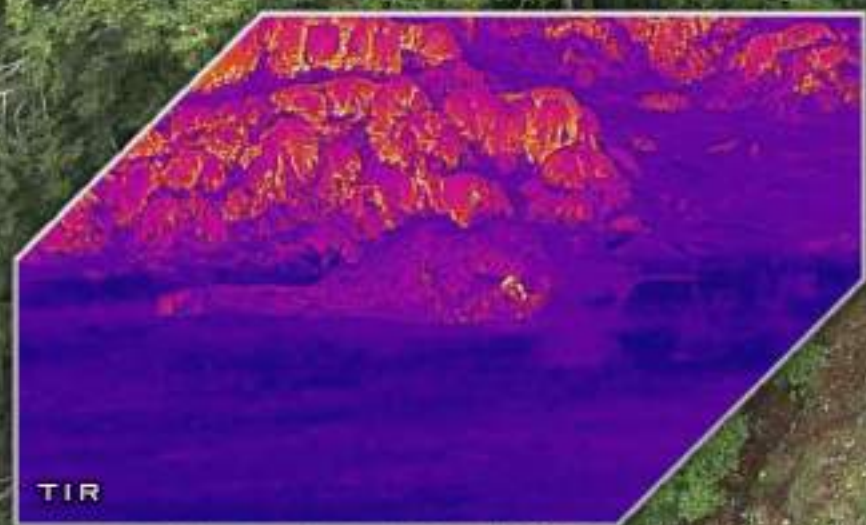


KNOW MORE ABOUT THE FIRST ITALIAN PATENT IN MATTER OF
MULTISPECTRAL CAMOUFLAGE



THE PATENT IS PENDING WORLDWIDE AND
PROAPTO KEEPS DEVELOPING NEW ASSETS

PROAPTO REPRESENTS THE STATE OF THE ART OF THREE-DIMENSIONAL MULTISPECTRAL CAMOUFLAGE (VIS-NIR-TIR)



DRONE WARFARE DICTATES THE NEED FOR HIGH-LEVEL MULTISPECTRAL EFFECTIVENESS

HIGHLY EFFECTIVE CAMOUFLAGE IS THE MAIN SOLUTION AGAINST DRONES AND THERMAL SENSOR PROLIFERATION

PROAPTO PONCHO

REGULAR CLOTHING

PROAPTO PONCHO

REGULAR CLOTHING



IMAGE TAKEN AT 30MT OF DISTANCE

EXPLORE OUR VIDEOS ON MULTISPECTRAL CAMOUFLAGE





NIR



MWIR

LWIR



MULTI-TERRAIN VIS - NIR - TIR CAMOUFLAGE BASED ON WORLDWIDE BIOMES



2D AND 3D PATTERNS



CREDITS: ITALIAN ARMY

FIRST LETTER

A TROPICAL
B DRY
C MILD TEMPERATE
D CONTINENTAL
E POLAR

SECOND LETTER

| | |
|---|-------------|
| F | FULLY HUMID |
| M | MONSOON |
| S | DRY SUMMER |
| W | DRY WINTER |
| W | DESERT |
| S | STEPPE |
| T | TUNDRA |
| F | FROST |

THIRD LETTER

H HOT ARID
K COLD ARID
A HOT SUMMER
B WARM SUMMER
C COOL SUMMER
D COLD SUMMER



BROAD-LEAVED AND TEMPERATE BIOMES



N= 5 2D PATTERNS

N= 7 3D PATTERNS

TOTAL OF 35 DIFFERENT SOLUTIONS



CWA



CFA



CFC



CWB



CFB



CWC

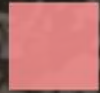
DRY-ARID AND DESERTIC ENVIRONMENTS



BW_H



BS_H



BW_K



BS_K



N= 5 2D PATTERNS

N= 5 3D PATTERNS

TOTAL OF 25 SOLUTIONS

TROPICAL AND FULLY HUMID CLIMATES



N= 4 2D PATTERNS
N= 4 3D PATTERNS
TOTAL OF 16 SOLUTIONS



\wedge_F



\wedge_M



\wedge_W

CONTINENTAL CLIMATES AND MOUNTAINS



| | | | | | |
|-------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------|-----------------|
|  | D _{SA} |  | D _{WA} |  | D _{FA} |
|  | D _{SB} |  | D _{WB} |  | D _{FB} |
|  | D _{SC} |  | D _{WC} |  | D _{FC} |
|  | D _{SD} |  | D _{WD} |  | D _{FD} |



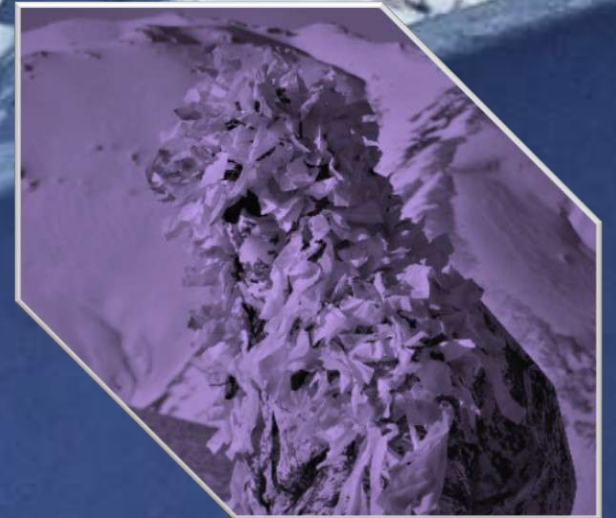
SNOWY, ALPINE AND ARTIC ENVIRONMENTS



E_T



E_F



UNPARALLELED
SIGNATURE MATCH
IN EXTREME COLD

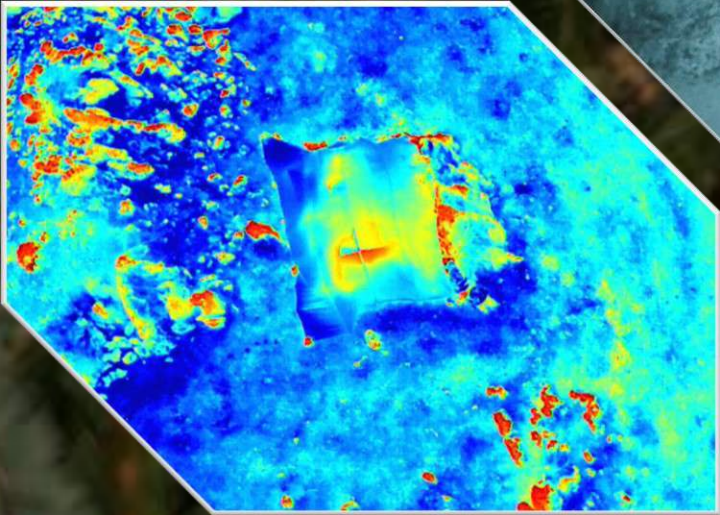
URBAN AND INDUSTRIAL SETTLEMENTS

360-DEGREE
FULL SPECTRUM
PROTECTION

COUNTER UAS



CAMOUFLAGE PATTERNS AND VEHICLE COVERS



ULTRALIGHT (120 GSM), REVERSIBLE,
HYDROPHOBIC RADIO TRANSPARENT, LOW COST

ABOUT US

ProApto personnel comprises academic neuroscientists, software testers, graphic designers, former military officers, and uniquely trained artisans who are the driving force behind ProApto's innovative products.

ProApto products are currently in use among several NATO armies.

Average production capacity is 360 items per month - ISO 9100D (Italy)





ETHICS

Multispectral Camouflage is about protecting and saving lives when it matters the most. Because of this, ProApto openly shares the level of its multispectral effectiveness to better educate and inform the end users.

In the same vein, Multispectral Camouflage is object of extensive and comprehensive outdoor testing, followed by statistical data analyses. The final result is a transparent relationship with the end users.

CONTACTS

ProApto is the company with the most prominent online presence in terms of multispectral camouflage content. Over 250 videos on YouTube and thousands of followers on social media. Find and follow ProApto on:



WWW.PROAPTO-CAMOUFLAGE.COM

ORDERS@PROAPTO-CAMOUFLAGE.COM



ARMA CORPORIS APTO