



KSD Technology

CAMOUFLAGE NETS

Infrared rays reflection effect

Radar scattering effect

Thermal

Supporting system

Smart tent

Chameleon



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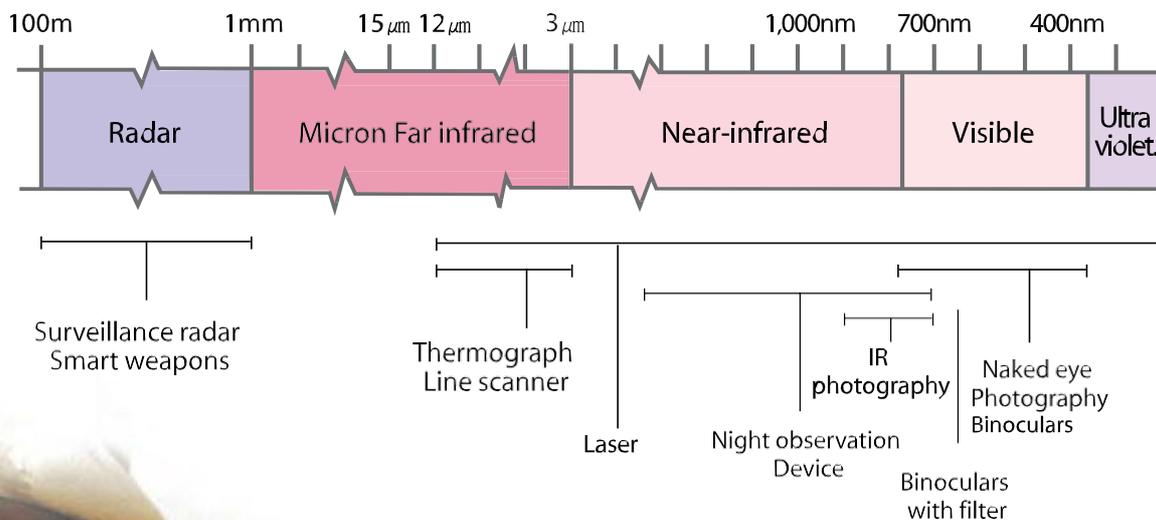
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GENERAL INFORMATION

The purpose of camouflage is to protect your precious equipment and important military facilities from enemy's detection and attack. According to past conception of camouflage, it was enough to adapt the objects to their surroundings by protective color similar to that of the environments which is visible directly by naked eyes or detected through binoculars. Camouflage technique is indispensable to protect armored vehicles and your soldiers. In modern times, due to the remarkable progress of precision apparatuses which utilize invisible infrared rays, the precision detecting techniques have also kept on developing. Modern camouflage is more sophisticated than simple decoration with natural vegetation, though it remains true that the major means of discovery of personnel and material is the human eye.

LIGHT SPECTRUM



REFLEXIBILITY TABLE

Reflexibility(%)

Wave length(nm) Sample color tones	680	700	750	800	850	900	950	1000	1050	1100	1150	1200
Chlorophyll	7	15	40	50	50	50	50	50	48	48	48	47
I-REX textile Dark green color	14	15	35	43	43	43	43	43	43	42	42	41
I-REX textile Light green color	8	13	40	51	51	51	51	51	49	49	48	47



TYPE OF CAMOUFLAGE NETS

A-Type : Protection from observation by naked eyes and infrared rays

B-Type : Protection from observation by naked eyes, infrared rays and radar screens

C-Type : Protection from observation by naked eyes, infrared rays, radar screen and thermal sensor.

COLOR REQUIREMENTS

Color	Trichromatic Coefficients		
	X	y	Y
Woodland	0.362	0.395	0.094-0.108
1. Light Green			
2. Dark Green	0.343	0.390	0.070-0.085
3. Forest Green	0.330	0.355	0.058-0.072
4. Olive	0.363	0.377	0.097-0.113
5. Khaki	0.357	0.362	0.210-0.230
6. Brown	0.360	0.350	0.102-0.118
7. Tan	0.388	0.370	0.210-0.230
Desert	0.350	0.355	0.242-0.264
1. Khaki			
2. Tan	0.356	0.351	0.336-0.361
3. Straw	0.396	0.393	0.281-0.304
4. Russet	0.390	0.350	0.171-0.189
5. Light Brown	0.367	0.358	0.190-0.210

VISUAL

Each area of the world and each climatic condition have color patterns and textures that are natural for that area. While color is self-explanatory, texture defines the surface characteristics of something when looking at it. For example, surface textures may be smooth, rough, rocky, leafy, or many other possible combinations.

Use color and texture together to camouflage yourself effectively.





NEAR INFRA-RED

Night-vision and Near Infra-Red viewers have forced the designers of camouflage to include the NIR region of the spectrum in their considerations and Infra-Red reflecting coating has been known for several decades.

Nets are treated with special chemicals and pigments that match the near IR reflection properties of the requested surroundings.



Normal Color Film

Camouflage detective film
(color IR)



INFRA RED RAYS REFLECTION EFFECT

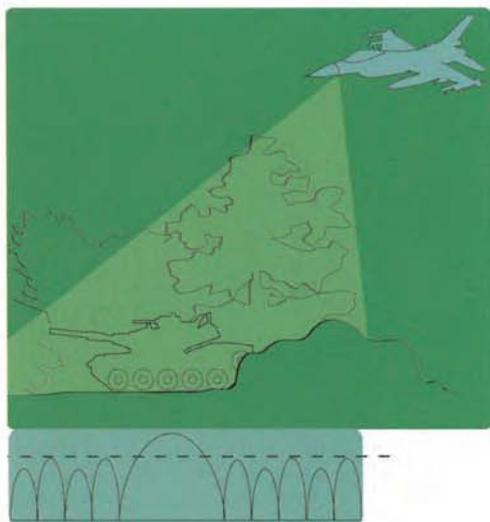
Color	Reflectance value	
	Visual 400 - 680nm	Near IR 680 - 900nm
Desert-A(Beige)	30% - 70%	30% - 80%
Desert-B(Beige)	30% - 70%	30% - 80%
Desert-C(Beige)	18% - 30%	18% - 70%
Desert-D(Beige)	30% - 70%	30% - 80%
Light Green	Max. 14%	5% - 80%
Dark Green	Max. 13%	5% - 80%



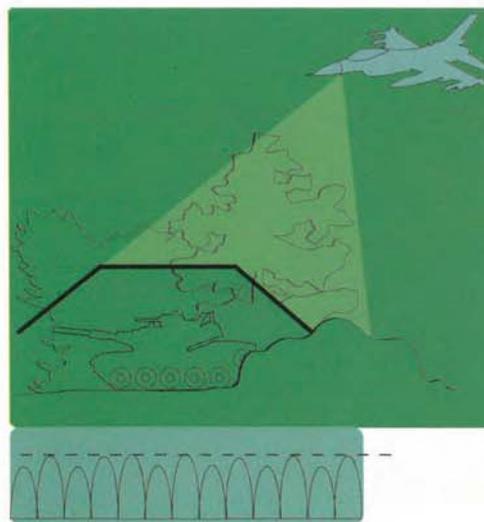
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RADAR SCATTERING EFFECT

Most objects reflect radio waves much as they do light. Determination of the reflected wave direction and delay permits location of a target. Some radar techniques permit identification of the shape of the target, and most permit calculation of the target heading and velocity. Nets scatter and block the signals, reducing the image received by the radar.



The purpose of radar camouflage is to reduce radar reflections to the same level as the surrounding background.



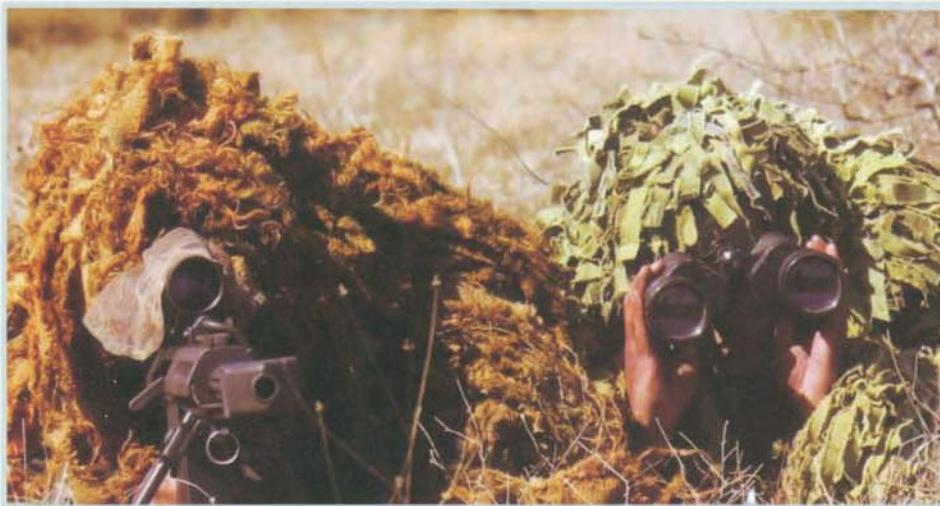
The purpose of radar camouflage is to reduce radar reflections to the same level as the surrounding background.





THERMAL

Many of these products rely on or include similar elements of thermal insulation and reflection to isolate the target from sources of heat that can either give away a target's position and identity to a thermal-imager equipped observer or produce uncomfortable or unsafe hot working conditions for personnel, stores and equipment.



SUPPORTING SYSTEM

Adapter & Spreader (Fiber-glass)



Fiber-glass Pole





SMART TENT



Smart Tent is your commodious mobile house as well as your shelter to save your life

FEATURES

1. Near Infrared signature reduction characteristics and radar scattering effect
2. Temperature - adjustable system
 - * Keeping warmth at low temperatures and blocking heat at high temperatures
 - * Designed and manufactured with the functions that respond actively to all circumstances after perceiving external temperatures as follow:
 - At outside temperatures between 10°C and 20°C, the control operation remains.
 - At outside temperatures over 30°C, lowering temperature inside of the tents by $10\pm 1^{\circ}\text{C}$
 - At outside temperatures below 5°C, increasing temperature inside of the tents by $7.5\pm 1^{\circ}\text{C}$
3. Moisture permeability : 50,009~71,472/rrf/24hrs
4. 100% Water Proof
5. 99.9% Anti - bacteria against S.aureus : Yellow Staphylococcus and K.Pneumoniae
6. Colorfastness to light : grade 4



CHAMELEON



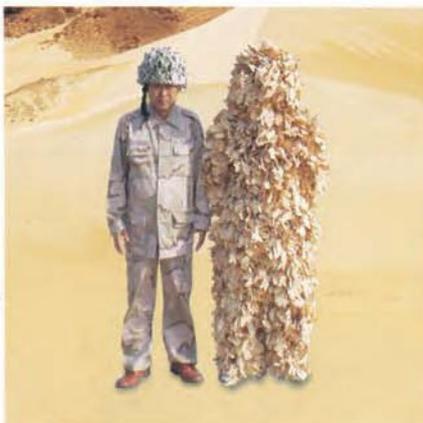
Chameleon is designed to breakup the human outline in all surrounding background environments for excellent concealment. It's customized for not only color patterns and surface textures but also thermal threat as per buyer's request.

This product adapts itself to the changing environmental temperature with automatic cooling and heating functions.

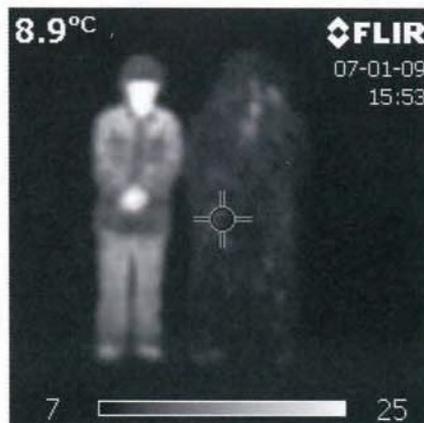
It consists of pants and jacket with optional mask and helmet cover. It's ultra light and weighs approximately 2.8kg.

The remarkable moisture permeability of the fabrics can discharge sweat outside.

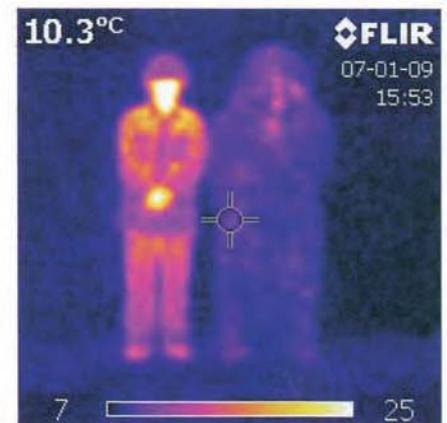
* The image of uncamouflaged soldier to the left and of camouflaged soldier with Chameleon to the right



• Normal Image



• Thermal image in black-and-white



• Thermal image in rainbow



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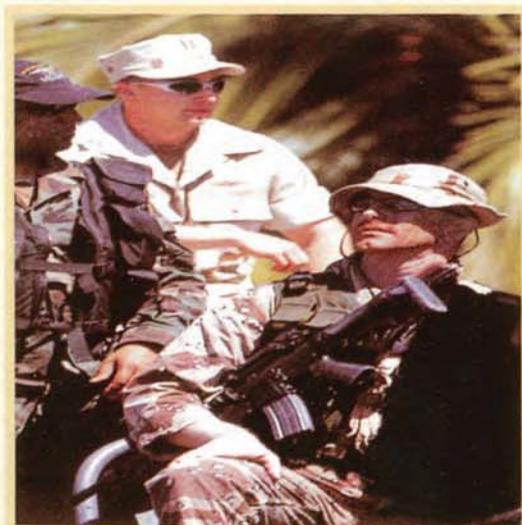
KEEP YOUR SOLDIERS COOL AND WARM



This extraordinary uniform is the only uniform to adjust itself to environmental temperatures. It provides your soldiers with the best possible comfort and refreshment.

It's customized for the design and color to meet your specific need.

Best uniform, Best Soldier
Smart Uniform helps your soldiers
to bring their duties to a successful conclusion.





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Our smart uniform is made of **New Noah-Tex[®]** of which raw material is Tourmaline.



FEATURES

- Anti-Bacteria / Waterproof and breathable fabrics /
- Temperature adjustable functions /
- Excellent moisture permeability





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THE SPECIFICATION OF CAMOUFLAGE SYSTEM



Stopping



Operating

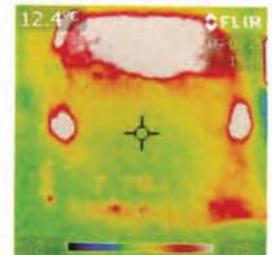
G.N Heat Control is designed to function that responds actively to all climatic conditions. When it's hot, your smart uniform absorbs your heat and returns it to you when it's cold.



As MD Green Camouflage is the mobile camouflage system, the windshield cover is attachable. In motion the windshield cover be removed.



Vehicle with Camouflage B-Type

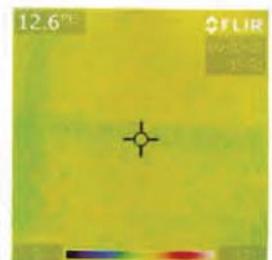


Thermal image

The vehicle with Camouflage B-Type is detected by Thermal Imager, so your enemy recognizes it.



Vehicle with MD Green Camouflage



Thermal image

The vehicle with MD Green Camouflage is not detected by Thermal Imager. You and your equipment will be safe against thermal sensor.