

M i l l s t r e a m

(Penthouse Systems) Ltd

CARM

CHEMICAL AGENT RESISTANT MATERIAL

2000



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Vehicles and equipment being protected with CARM

The threat posed by the recent proliferation of Nuclear, Biological and Chemical (NBC) weapons has resulted in many nations taking steps to modernise their chemical defence inventories.

In the process of modernisation large sums of money have been expended to provide ships, vehicles and aircraft with sophisticated barriers and effective NBC filtration equipment. This expenditure will, however, have been of limited value if the stocks of material



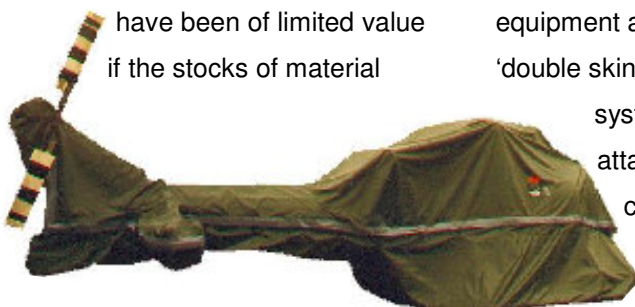
from which vehicles have to regularly replenish have become contaminated.

The British forces have overcome this problem by covering their vehicles and equipment and developing 'double skin' entry/exit

systems to be attached to various cabin complexes, vehicles and

buildings with CARM (Chemical Agent Resistant Material).

Items of equipment and personnel that are covered with CARM 2000, are totally protected from liquid contamination produced by chemical agent droplets falling through the atmosphere.



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CARM 2000

CARM 2000 is ideal for many applications on the modern battlefield, from rapid deployment and tented complexes to the straightforward covering and protection of vehicles and equipment.

As it does not absorb chemical agents, the surface can be rapidly decontaminated, reducing the risk of contamination to personnel during redeployments.

Material Features

- Totally impervious to liquid and solid NBC agents
- Infra-red reflectant (NATO green only)
- Thermally stable from -40 to +75 deg C
- UV resistant
- Colour two sided options
- Extremely strong, light weight, and flexible
- Optional sealed eyelets for fixing down
- High resistance to piercing and punctures

Tactical CARM 2000 Additional Features

- Flame retardant

Military vehicles covered with IRR CARM observed through thermal image intensifier.



Flame retardant testing being conducted under controlled conditions.

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Benefits of CARM 2000

CARM 2000 offers many benefits with the two sided option and gives the user the ability to camouflage vehicles and logistic equipment in two different terrains by simply reversing the material. Some of the combinations available include NATO Green/ Urban, White/Black for snow conditions, Woodland Red/ NATO Green and Desert/ Urban.

CARM 2000 Colour Options

	Tactical CARM 2000			Logistic CARM 2000	
	Colour	Flame retardant	IRR	Colour	IRR
Woodland (NATO Green)	*	*	*	*	*
Urban (grey)	*	*		*	
White	*	*		*	
Black	*	*		*	
Desert (red)	*	*		*	
Desert (sand)	*	*		*	

CARM 2000 can also be manufactured as a two sided option in a combination of any two of the colours above.



*Logistical equipment in transit
protected from contamination by
CARM.*

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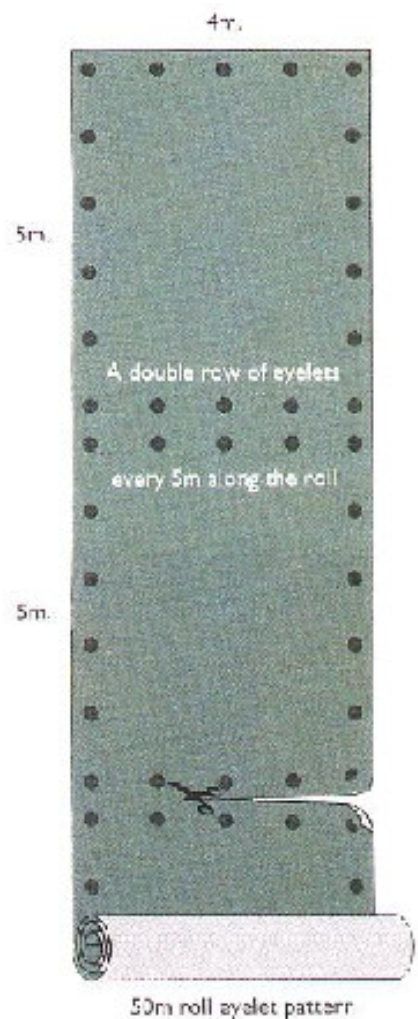
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Material Composition

CARM 2000 consists of a double layer of specially developed low density co-polymer sheeting, incorporating a strong polyester high-tenacity multifilament yarn forming an extremely strong reinforcement. The laminated sheeting is made 4 metres wide forming a 50m long homogenous sheet with no welds or seams. Each roll weighs approximately 45kg.

Fixing and Joining

CARM 2000 sheeting is manufactured with or without sealed eyelets. Special fixings are provided for use with the eyelets. For covering large and bulky items, it is very easy to join sheets together to give a permanent and agent-proof seal. Our expert fabricators are fully conversant with sewing, heat and high frequency welding techniques giving us the ability to offer the customer a complete finished product tailored to their specific requirements.



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Production Facilities

As well as being able to offer various CARM materials in tarpaulin and roll form, this company has experienced Project Engineers at various levels with full technical and practical backup, enabling us to offer customers a complete design and development package from its conceptual stage through to customers procurement, inclusive of integrated logistical support.



New Developments

Recent design and development of an airtight and liquid-tight interface gives the user the option of designing modular systems that can be deployed quickly and efficiently.

*UCPS
(Unhardened Collective
Protection System)
Designed to facilitate
sleep/rest quarters for up
to 30 men in conditions
where immediate evacuation
to a non-contaminated
area is not possible.*



*IBDS (Integrated Biological
Detection System)
Incorporates an extendable
side (TFA) Toxic Free Area
compartment, for food and rest.
Rear (CCA) Contamination
Control Area allows safe entry/
exit under a chemical
environment.*

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CARM Technical Data Sheet

Material Construction	Reinforced low density polyethylene
Material Property	Chemical resistant (SCRDE/IR/STR/0005) Infra-red reflectant (NATO green only) Flame retardant
Reinforcement	1500 Denier polyester in a 8mm x 12mm grid
Tensile Strength	730.30N
Tear Strength	80.50N
Thickness	200g/m ² +/- 10%
Colour Two Sided	NATO green or woodland,
Options	Urban gray, White, Black, Desert red, Desert sand
Thermal Stability	Between -40 deg C and +75 deg C

US and Canadian Distribution

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E-Mail: sales@mechron.com

Full technical details for the various types of CARM sheeting are
available through the sole distributor of this material

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