

# Mirage™ Thermal ID film

24hr All Weather Emergency Service Vehicle discrimination

Developed by

**QinetiQ**

Airborne surveillance is a highly effective tool for the prevention and detection of crime, and in supplying evidence to support investigations.

Many Police forces have their own dedicated aircraft fitted with a combination of visual and thermal infrared imaging equipment to give them 24 hour surveillance capability. However, when viewed at night using thermal infrared imagers, police cars with conventional roof markings are indistinguishable from each other or from similar civilian vehicles.



The above images show a police vehicle fitted with both Mirage™ and conventional roof markings. Only the Mirage™ markings are visible in the thermal infrared image.

Mirage™ thermal vehicle marking film offers 24 hour, all weather vehicle recognition & identification to enable accurate air to ground surveillance of police vehicles using visible and current/future thermal infrared imaging cameras.

Mirage™ is a unique low-cost, patented solution to enable any Police vehicle to be tracked day or night, or when visibility is poor. It has the ability to improve the operational effectiveness and tempo of air to ground surveillance.

The material works by a process called "cold-sky reflection".

When the material is placed on the roof of a vehicle and viewed from above by thermal imagers, Mirage™ shows black (cold) while the vehicle shows white (hot).

This produces the high reflectivity contrast to provide a clear, distinctive thermal infrared vehicle marking.

Mirage™ can be used to create infrared 'black' backgrounds or cut to create infrared 'black' symbols and letters. Mirage™ can be used in combination with conventional roof marking vinyl film or reflective roof marking film to create identification markings.

Conventional sign vinyl and 'reflective' marking films both show as light grey or white (warm), so when used with Mirage™ they create distinctive visible and thermal infrared vehicle markings. Mirage™ roof markings can be supplied with adhesive backing or temporary attachment magnetic backing.

Recommended for use on all UK police vehicles. *Thermal Roof Markings for Police Vehicles (Vehicle Roof Markings Update)*, HOSDB Publication Number 43/04.

#### Key benefits

- 24/7 all weather operation
- Improved operational tempo and effectiveness
- Improvement in situational awareness
- Fewer resources required to successfully prosecute the operation
- Pressure-sensitive self-adhesive for unmarked vehicles
- Compatible with conventional and reflective vehicle roof-sign materials
- No power or vehicle modifications required

The image below shows a Mirage™ marked police vehicle in a row of standard marked vehicles



# Mirage™ Thermal ID film

24hr All Weather Police Vehicle discrimination



The images above show an unmarked test vehicle with Mirage H roof markings.

These images demonstrate how Mirage™ has been exploited by UK Police Forces. The upper vehicle has conventional black sign vinyl roof markings. The lower vehicle has selected black Mirage film markings with conventional white sign vinyl letters and symbols on the rear part of the roof. Grey Mirage™ has been applied to the roof bar.

Conventional black sign vinyl and Mirage markings are highly conspicuous in the visible waveband image, but only the Mirage™ markings are visible in the thermal Infrared image.



Exclusively available from



PVL UK LTD 24 Victoria Way, Burgess Hill, West Sussex RH15 9NF  
Tel: 01444 258980 Fax: 01444 258981 Email: sales@pvluk.com WWW.PVLUK.COM

Developed by

