



UK Military Uniform Project

- Garment Schematic Diagram

By Lian Qiao Group

LOT 1: ¾ Length Black Waterproof Jacket

1.1. This black ¾ length waterproof jacket with a zipped in liner will be worn by uniformed officers and staff whilst undertaking a full range of operational duties and will form part of a layering system that aims to provide the wearer with comfort, warmth and keep them dry during long periods of exposure. It is therefore important that these garments complement this aim.

1.2. The ¾ Length Black Waterproof Jacket must conform to EN 343:2019 (class 4)

- The key critical garment attributes must include:
- Colour – All black. The shade of the fabrics must not change during production, storage, washing or during the life of the garment
 - Windproof
 - Waterproof
 - As Lightweight as possible
 - High level of breathability (maintained during wet weather)
 - Freedom of movement whilst carrying out a wide range of duties

Garment Property↵	Test Standard↵	Requirement↵
Protective Clothing - protection against rain↵	EN 343:2019↵	Class 4 (outer garment only)↵
Physiological effects.↵ Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test)↵	EN ISO 11092:2014↵ <u>R_{ct}</u> (thermal)↵	0.121±0.006 <u>R_{ct}</u> m²K/W (minimum) (liner only)↵
<u>Colour fastness</u> ↵	EN ISO 105-B02:2014↵	Meet requirement in the standard.↵
Textiles — Determination of fabric propensity to surface pilling, fuzzing or matting↵	EN ISO 12945-2:2020↵	≥ 4 at 2000 rubs (liner only)↵

LOT 1: ¾ Length Black Waterproof Jacket



Option 1: Fixed epaulettes approx. 700mm (tapering to 650mm) Wide x 1200mm Long. 5mm top stitched. Epaulettes secured with a button through fastening.

Option 2: Twin loops 10mm wide. Outer loops 60mm long. Inner loops 52mm long. Distance between the two loops must be approx. 65mm. Black button to be fitted to secure loose epaulette. An epaulette in the same fabric as the garment will be required and must fit the Twin loops.

The pattern of the reflective trim remains to be determined.
Option of reflective chequered banding associated with the Police service both front and back. (other non-police organisations may require alternative identification banding)



- Stand up collar incorporating a concealed detachable hood with wired peak

- 2 LHS Upper Chest and 2 RHS Upper Chest hook and loop badge patches (approx. 100mm x 40mm)
- 2 "Clickfast" style docks, 1 located on each side of upper chest

2 x napoleon map pockets under centre zip storm flap approx. size 23 x 29cm

2 chest pockets approx. 15cm wide by 18cm dee

2 lower hip pockets approx. 16cm wide by 23cm deep

- Fully lined jacket
- Zipped in liner to provide additional warmth whilst maintaining breathability.

- Waist adjuster
- Zipped side openings at the hem

Lot1: Black Waterproof Trouser

- 1.5. The black Waterproof Trouser will be worn by uniformed officers and staff whilst undertaking a full range of operational duties and will form part of a layering system that aims to provide the wearer with comfort and warmth. It is therefore important that these garments complement this aim.
- 1.6. This black waterproof trouser must conform to EN 343:2019 (class 4). The construction of the garment must provide maximum breathability whilst retaining the waterproof properties
- 1.7. The size roll must cover the general population and include short, regular and long options.
- 1.8** Colour – All black. The shade of the fabrics must not change during production, storage, washing or during the life of the garment

Garment Property↵	Test Standard↵	Requirement↵
Protective Clothing - protection against rain↵	EN 343:2019↵	Class 4↵
<u>Colour</u> fastness↵	EN ISO 105-B02:2014↵	Meet requirement in the standard.↵

Lot1: Black Waterproof Trouser

- Two flap pockets symmetrically placed on the left and right sides

- Elasticated waistband

- The trouser legs with zipper openings are convenient for putting on and taking off boots.

- compact carry bag



LOT 2 : ¾ Length Hi-Vis Waterproof Jacket



2.1 This high visibility ¾ length waterproof jacket with a zipped in liner will be worn by uniformed officers and staff whilst undertaking a full range of operational duties, including working on high-speed roads and will form part of a layering system that aims to provide the wearer with comfort, warmth and keep them dry during long periods of exposure.

2.2 High level of breathability (maintained during wet weather)

2.3 Windproof Waterproof
As Lightweight as possible
High level of breathability (maintained during wet weather)
Freedom of movement whilst carrying out a wide range of duties

2.4 High visibility yellow shade conforming to
EN ISO 20471:2013+A1:2016(class 3)EN
343:2019 (class 4) and be suitable for use
on high-speed roads.

2.5 The ¾ Length Hi-Visibility Waterproof Jacket
must conform to EN ISO 20471:2013+A1:2016
(class 3) and EN 343:2019 (class 4) and be
suitable for use on high-speed roads.

Garment Property↵	Test Standard↵	Requirement↵
Protective Clothing - protection against rain↵	EN 343:2019↵	Class 4 (outer garment only)↵
High-visibility↵	EN ISO 20471:2013 + A1:2016↵	Class 3↵
Physiological effects. Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test)↵	EN ISO 11092:2014↵ <u>R_{ct}</u> (thermal)↵	0.121±0.006 <u>R_{ct}</u> m²K/W (minimum)↵ (<u>liner</u> only)↵
<u>Colour</u> fastness↵	EN ISO 105-B02:2014↵	Meet requirement in the standard.↵
Textiles — Determination of fabric propensity to surface pilling, fuzzing or matting↵	EN ISO 12945-2:2020↵	≥ 4 at 2000 rubs↵

LOT 2 : ¾ Length Hi-Vis Waterproof Jacket



- Stand up collar incorporating a concealed detachable hood with wired peak

- Fixed epaulettes approx. 700mm (tapering to 650mm) Wide x 1200mm Long. 5mm top stitched.

- Fully lined jacket

- 2 x napoleon map pockets under centre zip storm flap approx. size 23 x 29cm

- 2 LHS Upper Chest and 2 RHS Upper Chest hook and loop badge patches (approx. 100mm x 40mm) and 1 x centre upper back approx. 250 x 100mm.

- Loop badge patches (approx. 100mm x 40mm)

- "Klickfast" style docks, 1 located on each side of upper chest

- chest pockets approx 15cm wide by 18cm deep

- Reflective chequered banding associated

- 2 lower hip pockets approx. 16cm wide by 23cm deep.

- Zippered side openings at the hem

- Waist adjuster

- Zippered in liner to provide additional warmth

• **Lot 2: Hi-Vis Waterproof Trouser**

2.5.The Hi-Vis Waterproof Trouser will be worn by uniformed officers and staff whilst undertaking a full range of operational duties, including working on high-speed roads and will form part of a layering system that aims to provide the wearer with comfort and warmth. It is therefore important that these garments complement this aim.

2.6.This waterproof trouser must conform to EN ISO 20471:2013+A1:2016 (class 1) and EN 343:2019 (class 4) and must be suitable for use on high-speed roads. The construction of the garment must provide maximum breathability whilst retaining the waterproof properties

2.7.The size roll must cover the general population and include short, regular and long options.

2.10.Colour – High visibility yellow shade option conforming to EN ISO 20471:2013+A1:2016 (class 1). The shade of the fabrics must not change during production, storage, washing or during the life of the garment

Garment Property	Test Standard	Requirement
Protective Clothing - protection against rain	EN 343:2019	Class 4
High-visibility	EN ISO 20471:2013 + A1:2016	Class 1
Colour fastness	EN ISO 105-B02:2014	Meet requirement in the standard.

Lot 2: Hi-Vis Waterproof Trouser

- The trouser have elasticated waist feature



- The trouser have a compact carry bag.

- High visibility yellow shade option conforming to EN ISO 20471:2013+A1:2016 (class 1).

- The trouser legs with zipper openings are convenient for putting on and taking off boots.

LOT 3 : Waterproof Blouson



3.1. The Waterproof Blouson must be available in both Hi-Vis Yellow and Black will be worn by uniformed officers and staff whilst undertaking a full range of operational duties, including working on high-speed roads and will form part of a layering system that aims to provide the wearer with comfort and warmth. It is therefore important that these garments complement this aim.

3.2. The high visibility blouson must conform to EN ISO 20471:2013+A1:2016 (class 3) and EN 343:2019 (class 4) and be suitable for use on high-speed roads. The construction of the garment must provide maximum breathability whilst retaining the waterproof properties.

3.3. The key critical garment attributes must include:

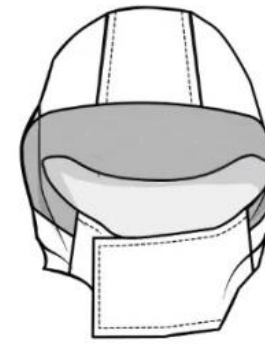
- Colours – High visibility yellow shade option conforming to EN ISO 20471:2013+A1:2016. All black option must also be available. The shade of the fabrics must not change during production, storage, washing or during the life of the garment.
 - Windproof
 - Waterproof
 - As Lightweight as possible
 - High level of breathability (maintained during wet weather)
- Freedom of movement whilst carrying out a wide range of duties
- Ability to attach an optional zipped in liner.
- Blouson must be available to purchase with or without the liner.

Garment Property	Test Standard	Requirement
Protective Clothing - protection against rain	EN 343:2019	Class 4 (outer garment only)
High-visibility	EN ISO 20471:2013 + A1:2016	Class 3 (Hi-Vis Yellow option only)
Physiological effects. Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test)	EN ISO 11092:2014 <u>R_{ct}</u> (thermal)	0.121±0.006 <u>R_{ct}</u> m²K/W (minimum) (liner only)
Colour fastness	EN ISO 105-B02:2014	Meet requirement in the standard.
Textiles — Determination of fabric propensity to surface pilling, fuzzing or matting	EN ISO 12945- 2:2020	≥ 4 at 2000 rubs (liner only)

LOT 3 : Waterproof Blouson

- Option 1: Fixed epaulettes approx. 700mm (tapering to 650mm) Wide x 1200mm Long. 5mm top stitched. Epaulettes secured with a button through fastening.
- Option 2: Twin loops 10mm wide. Outer loops 60mm long. Inner loops 52mm long. Distance between the two loops must be approx. 65mm. Black button to be fitted to secure loose epaulette. An epaulette in the same fabric as the garment will be required and must fit the Twin loops.

2 Napoleon map pockets under centre zip storm flap
approx. size 23 x 29cm



incorporating a detachable hood with wired peak

Stand up collar

2 LHS Upper Chest and 2 RHS Upper Chest hook and loop badge patches (approx. 100mm x 40mm)

2 Radio loops on front chest

2 Chest pockets approx..15cm wide by 18cm deep

Reflective chequered banding associated with the Police service both front and back. (other non-police organisations may require alternative identification banding)

- 1 x centre upper back approx. 250 x 100mm.
- Fully Lined



Lot 4: Lightweight Hi-Vis Showerproof Jacket



4.1. This Lightweight Hi-Vis Showerproof Jacket is predominantly for use in summer months and will be worn by uniformed officers and staff whilst undertaking a full range of operational duties, including working on high-speed roads and will form part of a layering system that aims to provide the wearer with comfort. It is therefore important that these garments complement this aim.

4.2. The Lightweight Hi-Vis Showerproof Jacket must conform to EN ISO 20471:2013+A1:2016 (class 3) and EN 343:2019 (class 1) and be suitable for use on high-speed roads. The construction of the garment must provide maximum breathability whilst retaining the showerproof properties.

4.3. The key critical garment attributes must include:

- Colours – High visibility yellow shade option conforming to EN ISO 20471:2013+A1:2016. The shade of the fabrics must not change during production, storage, washing or during the life of the garment
- The Lightweight Hi-Vis Showerproof Jacket must have a compact carry bag.
- Windproof
- Showerproof
- Lightweight
- High level of breathability (maintained during wet weather)

Freedom of movement whilst carrying out a wide range of duties

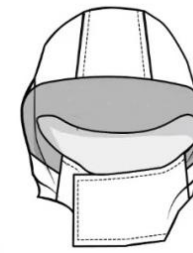
Garment Property	Test Standard	Requirement
Protective Clothing - protection against rain	EN 343:2019	Class 1
High-visibility	EN ISO 20471:2013 + A1:2016	Class 3
Colour fastness	EN ISO 105-B02:2014	Meet requirement in the standard.

Lot 4: Lightweight Hi-Vis Showerproof Jacket

- Option 1: Fixed epaulettes approx. 700mm (tapering to 650mm) Wide x 1200mm Long. 5mm top stitched. Epaulettes secured with a button through fastening.
- Option 2: Twin loops 10mm wide. Outer loops 60mm long. Inner loops 52mm long. Distance between the two loops must be approx. 65mm. Black button to be fitted to secure loose epaulette. An epaulette in the same fabric as the garment will be required and must fit the Twin loops.



The Lightweight Hi-Vis Showerproof Jacket have a compact carry bag.



incorporating a concealed detachable hood with wired

Stand up collar

2 LHS Upper Chest and 2 RHS Upper Chest hook and loop badge patches (approx. 100mm x 40mm)

1 x centre upper back approx. 250 x 100mm

2 "Klickfast" docks, 1 located on each side of upper chest

Reflective chequered banding associated with the Police service both front and back. (other non-police organisations may require alternative identification banding)

Lot 5: Lightweight Hi-Vis Jacket

- 5.1. This Lightweight Hi-Vis Jacket is predominantly for use in summer months and will be worn by uniformed officers and staff whilst undertaking a full range of operational duties, including working on high-speed roads and will form part of a layering system that aims to provide the wearer with comfort and warmth. It is therefore important that these garments complement this aim.
- 5.2. The high visibility lightweight Jacket must conform to EN ISO 20471:2013+A1:2016 (class 3) and be suitable for use on high-speed roads. The construction of the garment must provide maximum breathability.
- Lightweight
 - High level of breathability
 - Freedom of movement whilst carrying out a wide range of duties

Garment Property↵	Test Standard↵	Requirement↵
High-visibility↵	EN ISO 20471:2013 + A1:2016↵	Class 3↵
<u>Colour fastness</u> ↵	EN ISO 105-B02:2014↵	Meet requirement in the standard.↵

Lot 5: Lightweight Hi-Vis Jacket



- *Option 1:* Fixed epaulettes approx. 700mm (tapering to 650mm) Wide x 1200mm Long. 5mm top stitched. Epaulettes secured with a button through fastening.
- *Option 2:* Twin loops 10mm wide. Outer loops 60mm long. Inner loops 52mm long. Distance between the two loops must be approx. 65mm. Black button to be fitted to secure loose epaulette. An epaulette in the same fabric as the garment will be required and must fit the Twin loops.

- 2 "Clickfast" docks, 1 located on each side of upper chest



The Lightweight Hi-Vis Jacket have a compact carry bag.



Reflective chequered banding associated with the Police service both front and back. (other non police organisations may require alternative identification banding)

2 LHS Upper Chest and 2 RHS Upper Chest hook and loop badge patches (approx. 100mm x 40mm) and 1 x centre upper back approx. 250 x 100mm.

• Lot 6: Multi-Functional Jacket

6.1. Currently police forces issue officers with a number of jackets working in conjunction with each other to provide the officer protection in a range of environments. BlueLight Commercial have set out the specification below to ask for options in order to solve this problem. This multi-functional jacket will be worn by uniformed officers and staff whilst undertaking a full range of operational duties. The jacket must provide the wearer with comfort, warmth and keep them dry during long periods of exposure. The proposed garment must have the ability to be worn independently or in its entirety, and it is therefore important that these garments look professional when worn together or independent of each other.

6.2. The winning bidders will work with BlueLight Commercial to develop this option further using innovation and design expertise.

6.3. The outer layer must conform to EN 343:2019 (class 4)

The key critical garment attributes of the outer option must include: All black

- Windproof
- Waterproof
- As Lightweight as possible
- Freedom of movement whilst carrying out a wide range of duties

Garment Property↵	Test Standard↵	Requirement↵
Protective Clothing - protection against rain↵	EN 343:2019↵	Class 4 (outer garment only)↵
Physiological effects. Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test)↵	EN ISO 11092:2014↵ <u>R_{ct}</u> (thermal)↵	0.121±0.006 <u>R_{ct}</u> m²K/W (minimum) (inner garment only only)↵
<u>Colour</u> fastness↵	EN ISO 105-B02:2014↵	Meet requirement in the standard.↵
Textiles — Determination of fabric propensity to surface pilling, fuzzing or matting↵	EN ISO 12945-2:2020↵	≥ 4 at 2000 rubs (inner garment only)↵

Lot 6: Multi-Functional Jacket



- *Option 1:* Fixed epaulettes approx. 700mm (tapering to 650mm) Wide x 1200mm Long. 5mm top stitched. Epaulettes secured with a button through fastening.
- *Option 2:* Twin loops 10mm wide. Outer loops 60mm long. Inner loops 52mm long. Distance between the two loops must be approx. 65mm. Black button to be fitted to secure loose epaulette. An epaulette in the same fabric as the garment will be required and must fit the Twin loops.

- Stand up collar incorporating a concealed detachable hood with wired peak

- 2 “Klickfast” style docks, 1 located on each side of upper chest



- 2 x napoleon map pockets under centre zip storm flap approx. size 23 x 29cm

- 2 chest pockets approx. 15cm wide by 18cm deep

- Reflective chequered banding associated with the Police service both front and back. (other non-police organisations may require alternative identification banding)

- 2 lower hip pockets approx. 16cm wide by 23cm deep

- Zipped side openings at the hem

- Waist adjuster



• Lot 6: Multi-Functional Jacket

The key critical garment attributes of **the inner option** must include:

- Color – All black. The shade of the fabrics must not change during production, storage, washing or during the life of the garment
- Inner garment must be both wearable independently and in conjunction with the outer garment
- Freedom of movement whilst carrying out a wide range of duties
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Garment Property↵	Test Standard↵	Requirement↵
Protective Clothing - protection against rain↵	EN 343:2019↵	Class 4 (outer garment only)↵
Physiological effects. Measurement of thermal and water-vapour resistance under steady-state conditions (sweating guarded-hotplate test)↵	EN ISO 11092:2014↵ <u>R_{ct}</u> (thermal)↵	0.121±0.006 <u>R_{ct}</u> m²K/W (minimum) (inner garment only only)↵
<u>Colour fastness</u> ↵	EN ISO 105-B02:2014↵	Meet requirement in the standard.↵
Textiles — Determination of fabric propensity to surface pilling, fuzzing or matting↵	EN ISO 12945-2:2020↵	≥ 4 at 2000 rubs (inner garment only)↵

Lot 6: Multi-Functional Jacket



- *Option 1:* Fixed epaulettes approx. 700mm (tapering to 650mm) Wide x 1200mm Long. 5mm top stitched. Epaulettes secured with a button through fastening.
- *Option 2:* Twin loops 10mm wide. Outer loops 60mm long. Inner loops 52mm long. Distance between the two loops must be approx. 65mm. Black button to be fitted to secure loose epaulette. An epaulette in the same fabric as the garment will be required and must fit the Twin loops.

- Pen pocket on upper arm

- Stand up collar
- Central front zip fastener

- Reflective chequered banding associated with the Police service both front and back. (other non-police organisations may require alternative identification banding)
- 2 LHS Upper Chest and 2 RHS Upper Chest hook and loop badge patches (approx. 100mm x 40mm) and 1 x centre upper back approx. 250 x 100mm. (Both inner and outer)

- 2 front zipped hip pockets

- Elasticated waistband

- Adjustable cuff

