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SHIRLEY TESTING SERVICES

EC TYPE-EXAMINATION CERTIFICATE

NOTIFIED BODY IDENTIFICATION NO. 0338

Certificate No: 52238/1 Date of Issue: 12 February 2007

This is to certify that BTTG Shirley Testing Services, specified as a "notified body" under the terms of the Personal Protective Equipment Regulations 2002, did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the relevant provisions of EC Directive 89/686/EEC, or as amended, subject to any conditions in the schedule attached hereto.

Manufacturer: Praybourne Limited

Address: Alliance House
Fishing Line Road
Redditch
Worcestershire
B97 6EE

Product Description: XCELCIUS ULTRATHERM

Product Codes:


Men's Long Sleeve Top	XUT01	Women's Long Sleeve Top	XUT50
Men's Short Sleeve Top	XUT02	Women's Short Sleeve Top	XUT51
Men's Long Pants	XUT03	Women's Long Pants	XUT52

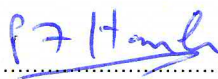
Technical File reference: XUT

Harmonised Standard(s): EN 340:2003
Technical Specification: ISO 9920:1995

This certificate relates specifically to the PPE items described and depicted in the manufacturer's Technical File, copies of which are held by the manufacturer and BTTG, and not to any other items.

The attached schedule of approval forms part of this certificate. This certificate remains valid unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Signed:  C A Butcher
Certification Officer

Deputy Manager, Certification:  P F Hamlyn
Shirley Testing Services

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BRITISH TEXTILE TECHNOLOGY GROUP
A Company Limited by Guarantee. No. 155873. VAT Reg. No. 145 9206 63.
Reg. Office: Wira House, West Park Ring Road, Leeds LS16 6QL, United Kingdom
The supply of all goods and services is subject to our standard terms of business,
copies of which are available on request through Customer Services.
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Schedule of Approval

Certificate No: 52238/1

Date of Issue: 12 February 2007

Issued by: BTTG Shirley Testing Services. Notified Body No. 0338.

Praybourne Limited XUT

CONDITIONS OF CERTIFICATION

Description of product

XCELCIUS ULTRATHERM underwear

Men's Long Sleeve Top	XUT01	Women's Long Sleeve Top	XUT50
Men's Short Sleeve Top	XUT02	Women's Short Sleeve Top	XUT51
Men's Long Pants	XUT03	Women's Long Pants	XUT52

Available in the following fabric:

Ultratherm; 50% Viloft / 50% Polyester (approx. 220 g.m²) in White or Blue

Manufacturer's Technical Specification

The manufacturer's Technical Specification was based on the International Standard ISO 9920:1995 (Ergonomics of the thermal environment – Estimation of the thermal insulation and evaporative resistance of a clothing ensemble). The suitability of this standard was checked with respect to the Basic Health and Safety Requirements of EC Directive 89/686/EEC, and was found to address the requirements for the end use of thermal underwear.

Estimated Effective Thermal Insulation (I_{clu}) to ISO 9920:1995 Annex C

XUT01; XUT50 = 0.025 m².KW

XUT02; XUT51 = 0.021 m².KW

XUT03; XUT52 = 0.019 m².KW

Limitations of Use

- Usage, maintenance and storage as per manufacturer's instructions.
- These garments provide thermal protection against cold temperatures when worn with appropriate outer clothing, for instance outer garments conforming to EN 342:2004 "Protective clothing – Ensembles and garments for protection against cold". Compatible garments such as gloves, boots and headwear should be worn if necessary.

According to Clause 3 of ISO 9920:1995, if the Effective Thermal Insulation (I_{clu}) of all of the other garments is known, then the Basic Insulation (I_{cl}) of the whole ensemble can be calculated by adding the values together:

$$I_{cl} = \sum I_{clu}$$

If the Effective Thermal Insulation (I_{clu}) of any of the other garments is not known then it can be estimated using Annexes A or B of ISO 9920:1995.

Annex C of ENV ISO 11079:1998 "Evaluation of cold environments – Determination of required clothing insulation (IREQ)" suggests that the Basic Insulation (I_{cl}) of an ensemble should be reduced by 20% for dynamic work and by 10% for stationary work to convert the values into the Resultant Basic Thermal Insulation ($I_{cl,r}$) of the ensemble.

Using the Resultant Basic Thermal Insulation ($I_{cl,r}$) of an ensemble, the exposure times and recommended working temperatures can be calculated for different levels of physiological output using either ENV ISO 11079:1998 or Annex B of EN 342:2004.

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Schedule of Approval (continued)

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Praybourne Limited XUT

DOCUMENTATION SUBMITTED (Technical File – XUT):

Approval Documents

- Fabric thermal resistance test report No. 52238/2/JS
- Fabric physical test report No. 52238/3/JS
- Ergonomic Assessment test report No. 52238/5/CS
- Innocuousness test report No. 20933
- Innocuousness information - Oeko-Tex Test-No. BAA 11368

Product Documentation

- Product description
- Drawings
- Fabric description and test data
- Supplier's Innocuousness statement for fabric
- Size chart
- Description of quality system for Manufacturer and manufacturing sites
- Labelling
- User Information

Terms and Conditions associated with the issue of EC Type-Examination Certificate No: 52238/1

1. This certificate is issued subject to BTTG's standard terms of business.
2. Production is limited to the site(s) listed in the manufacturer's Technical File, copies of which are held by the manufacturer and BTTG, and not to any other production site(s).
3. Any change to the product or quality manual / quality plan shall be immediately notified to BTTG.
4. This certificate is issued in the English language only. It is the responsibility of the Manufacturer / Authorised Representative to obtain and supply language versions acceptable to the country where the product is to be sold.
5. This certificate remains the property of BTTG and will be withdrawn if any of the conditions attached to its issue are not complied with.

END OF CERTIFICATE