



IRISH GPP CRITERIA:

TEXTILE PRODUCTS & SERVICES

IRISH GPP CRITERIA: TEXTILE PRODUCTS AND SERVICES



This document sets out the proposed core and comprehensive GPP criteria for application in the purchase of textile products and services by Irish public bodies. For the purposes of these criteria, the product group is defined as the following finished products, intermediate products and accessories:

- **Textile clothing and accessories:** uniforms, workwear, personal protective equipment (PPE) and accessories consisting of at least 80% by weight of textile fibres in a woven, non-woven or knitted form;
- **Interior textiles:** textile products for interior use consisting of at least 80% by weight of textile fibres in a woven, non-woven or knitted form. This includes bed linen, towels, table linen and curtains;
- **Textile fibres, yarn, fabric and knitted panels:** intermediate products intended for use in textile clothing and accessories and interior textiles, including upholstery fabric and mattress ticking prior to the application of backings and treatments associated with the final product;
- **Non-fibre elements:** intermediate products that are to be incorporated into textile clothing and accessories, and interior textiles. This includes zips, buttons and other accessories, as well as membranes, coatings and laminates that form part of the structure of clothing or interior textiles and which may also have a functional purpose. For the purposes of these criteria, textile fibres comprise natural fibres, synthetic fibres and man-made cellulose fibres.

The scope of textile fibres for which GPP criteria are provided is as follows:

- natural fibres: cotton and other natural cellulosic seed fibres, wool and other keratin fibres;
- synthetic fibres: polyamide and polyester;
- man-made cellulose fibres: lyocell, modal and viscose.

The criteria have been developed based on the *2017 EU GPP Criteria for Textile Products and Services*, relevant Irish and European legislation and procurement practice in the sector. **These criteria were published as a consultation document with comments invited from Irish public bodies and sectoral experts on how they can best be adapted and applied.**

Further context for the development of the criteria, and advice on how they can be applied and verified within tender procedures, is given in the accompanying EPA guidance document. For an overview of the sector, GPP approach and examples of real tenders, please refer to *Module 7.10 of the GPP Training Toolkit*.

WHAT DO THE CRITERIA COVER?

The following tables summarise the core and comprehensive GPP criteria for textile products and services. A merged cell indicates that the same criteria apply at core and comprehensive level.

1 SUPPLY OF TEXTILE PRODUCTS WITH REDUCED ENVIRONMENTAL IMPACT

TOPIC	CORE GPP CRITERIA	COMPREHENSIVE GPP CRITERIA
A. CAPACITY OF SUPPLIERS: TRACEABILITY OF FIBRES AND MANAGEMENT OF CHEMICALS (SC)		TS1. Capacity to ensure traceability of fibres and chemical management
B. TEXTILE FIBRES (TS AND AC)	TS1. Cotton fibres	
	TS2. Wool fibres	
	TS3.1 Sulphur emissions to air	
		TS3.2 Bleaching – elemental chlorine
		TS4. Polyester recycled content
		AC1. Polyester and polyamide (nylon) recycled content
C. CHEMICAL RESTRICTIONS (TS AND AC)		AC2. Polyester recycling
	TS5. Substances on REACH candidate list	
		TS6. Substances to be tested for on the final product
D. DURABILITY AND LIFESPAN EXTENSION (TS)		AC3. Restrictions on substances to be verified at production sites
	TS7. Durability standards	
E. ENERGY CONSERVATION DURING USE (TS)	TS8. Availability of parts and accessories	
	TS9. Fabric selection to minimise energy use for drying and ironing	
F. DESIGN FOR RE-USE AND RECYCLING (AC)	TS10. Care labelling	
	AC4. Design for reuse and recycling	

2 PROVISION OF TEXTILE SERVICES WITH REDUCED ENVIRONMENTAL IMPACT

TOPIC	CORE GPP CRITERIA	COMPREHENSIVE GPP CRITERIA
A. CAPACITY OF SERVICE PROVIDERS (SC)	SC1. Environmental technical capacity (for laundry services, maintenance and take-back schemes)	
B. LAUNDRY SERVICES (TS, AC AND CPC)	TS1. Fabric selection to minimise energy use for drying and ironing	
		AC1. Specific energy consumption
		AC2. Detergent environmental impact
		CPC1. Specific energy consumption and detergents
C. MAINTENANCE	TS2. Maintenance of the textile assets	
	TS3. Take-back system	
	CPC1. Take-back system	

IRISH GPP CRITERIA - HOW TO READ THE TEMPLATE

Scope	Defines the products and services to which the criteria apply.
Exclusions	Identifies any related products or services which are not covered by the criteria.
References	The primary sources consulted to develop the Irish GPP criteria.
Eco-labels	Type I eco-labels and other labels which address relevant environmental characteristics of the products or services and may be used either to define GPP criteria, verify compliance or both. Labels with equivalent criteria must also be accepted.
Legislation and Standards	Relevant EU and Irish legislation which applies within the sector and International, European or Irish standards which may be referenced in technical specifications (accompanied by the words 'or equivalent').
Notes	Practical tips and advice on applying the criteria, and explanations of the environmental impacts being addressed.
Core Criteria	Criteria which can be applied by any Irish public body and which are expected to have minimal effect on costs or verification effort.
Comprehensive Criteria	Criteria which go beyond the core requirements to target enhanced environmental performance and may imply some additional costs or verification effort.
Selection Criteria	Criteria which operators must meet in order to be eligible for tender submission (in a two-stage procedure) or award (in an open procedure).
Specification	Minimum requirements which all tenders must meet. Where multiple specifications are included in the criteria, these may be used together (recommended) or separately.
Specification - Variant	An optional alternative to the specification, which allows alternative solutions to be considered.
Award Criteria	Criteria which target environmental performance beyond the minimum requirements of the specification. These may be qualitative or quantitative in nature and must be weighted for evaluation. It is up to the contracting authority to determine an appropriate weighting based on its priorities and the totality of criteria which it is applying in a specific tender.
Contract Management	Clauses which can be inserted into contracts in order to manage environmental aspects and promote progressive improvements in delivery.

SCOPE, REFERENCES, LEGISLATION AND CERTIFICATIONS/LABELS

IN SCOPE	<p>Purchase or hire of textile clothing and accessories including uniforms, workwear and personal protective equipment (PPE); interior textiles (e.g. bed linen, towels, table linen and curtains); textile fibres, yarn, fabric and knitted panels including fabric upholstery and mattress ticking; and non-fibre intermediate products to be incorporated into textile clothing, accessories or interior textiles (e.g. zips, buttons, coatings, laminates). The materials covered by the GPP criteria are:</p> <ul style="list-style-type: none"> • natural fibres: cotton and other natural cellulosic seed fibres, wool and other keratin fibres • synthetic fibres: polyamide and polyester • man-made cellulose fibres: lyocell, modal and viscose <p>Textile services are included within the scope as they can offer environmental life cycle cost benefits when compared with outright purchase. Such services comprise, as a basic scope, laundry, maintenance and take-back services for textile products that may be owned by the contracting authority or provided as part of a hire arrangement.</p>
NOT IN SCOPE	<ul style="list-style-type: none"> • Textile clothing and accessories consisting of less than 80% by weight of textile fibres in a woven, non-woven or knitted form • Interior textiles consisting of less than 80% by weight of textile fibres in a woven, non-woven or knitted form • Textiles made of materials other than those listed above. • Footwear – note there is an EU Ecolabel for footwear which defines requirements in terms of cleaning and care instructions, repair and disposal. Contracting authorities may wish to consult the label criteria <i>here</i>.
LEGISLATION AND STANDARDS	<ul style="list-style-type: none"> • Regulation (EU) 2018/848 on organic production and labelling of organic products – specifies the requirements for organic production and use of the EU green leaf logo • Commission Decision (EU) 2014/350 establishing the criteria for the EU Ecolabel for textile products, as amended by Decision 2017/1392. • Commission Decision 2017/1219 establishing the EU Ecolabel criteria for industrial and institutional laundry detergents, amended by Decisions 2018/993 and 2019/418 • Consolidated Regulation No. 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) • Commission Regulation (EU) 2019/1691 of 9 October 2019 amending Annex V to Regulation (EC) No 1907/2006 on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) • Regulation (EC) No 1221/2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) • ISO 14024:2018 Environmental labels and declarations — Type I environmental labelling — Principles and procedures • ISO 14001:2015 Environmental management systems • ISO 15797: 2017 Textiles — Industrial washing and finishing procedures for testing of workwear • ISO 15487:2018 Textiles — Method for assessing appearance of apparel and other textile end products after domestic washing and drying

SCOPE, REFERENCES, LEGISLATION AND CERTIFICATIONS/LABELS

ECOLABELS	<ul style="list-style-type: none"> • <i>EU Ecolabel for Textile Products</i> • <i>EU Ecolabel for Industrial and Institutional Laundry Detergents</i> • <i>EU Organic certification</i> • Global Organic Textile Standard (<i>GOTS</i>) • <i>IFOAM</i> – Organics International • The <i>Better Cotton Initiative</i> (BCI) • <i>AGRO 2.1/2.2</i> • <i>Cotton Made in Africa</i> • <i>Fair Trade</i> International Label • <i>Oeko-Tex Standard 100</i> label • <i>Bluesign</i> label
REFERENCE DOCUMENTS	<ol style="list-style-type: none"> 1. 2017 <i>EU GPP Criteria for Textile Products and Services</i> and Technical Background Report 2. European Commission Joint Research Centre (2020) <i>Guidance on EU GPP Criteria for Textile Products and Services</i> 3. ECAP Project (2019) <i>Reports, resources and case studies on sustainable public procurement of textiles</i> 4. EU Ecolabel for Textile Products and Services – <i>Factsheet</i> (2017) 5. WRAP (2016) <i>Textiles Collection Procurement Guide</i>
NOTES	<p>The primary environmental impacts associated with textiles arise from the production and processing of raw materials, including the application of pesticides, chemicals and dyes, energy and water use in the production process. Secondary impacts arise during the use phase, particularly if fabrics require special care or cleaning (e.g. washing at high temperatures) or must be frequently replaced due to low durability, poor colour-fastness or shrinkage. The end-of-life treatment of textiles, for example through take-back schemes and reuse, must be considered as part of procurement.</p> <p>In the case of uniforms, prior consultation with the staff who will be wearing the textiles is a good way to ensure fitness for purpose and avoid over ordering or issues linked to quality, comfort and fit. Communication regarding the care requirements for textiles is also essential. Addressing the environmental impacts of textiles can also help to minimise costs and maximise user satisfaction over their life-cycle.</p>

HOW CAN THE CRITERIA BE APPLIED AND VERIFIED?

Information about how each of the criteria can be verified is included. **The verification methods form an essential part of the criteria and must be included in tender documents to ensure that suppliers are aware of how compliance with the criteria will be assessed.** Some simple market research in advance of tendering should be sufficient to confirm that suppliers, products and services are available which meet the criteria and verification requirements. Further information on techniques for market engagement linked to GPP, including legal and practical considerations, is available in the EPA guidance and in Module 6 of the *GPP Training Toolkit*.

For a number of criteria, the proposed means of verification is the provision of **test reports**. For each of the criteria, the relevant test methods are indicated. It is up to the public authority to decide at which stage such test results should be provided. It may not be necessary to require all tenderers to provide test results from the outset. To reduce the burden on tenderers and public authorities, a self-declaration could be considered sufficient when submitting bids. There are different options for when test results could be required:

a. At the tendering stage: For one-off supply contracts, the provisionally successful tenderer could be required to provide this proof. If the proof is deemed to be sufficient, the contract can be awarded. If the proof is deemed insufficient or non-compliant, then: (i) where the means of verification concern a technical specification, the proof would be requested from the next highest-scoring bidder who would then be considered for contract award; (ii) where the means of verification concerns an award criterion, the additional points awarded would be removed and the tender ranking would be recalculated with all the ensuing consequences. For framework agreements the situation may be different, as explained in section b.

b. During contract execution: Test results could be requested for one or several items delivered under the contract, either in general or if there are concerns about false declarations. To facilitate this, it is recommended that explicit **performance clauses** are included in the contract. These should stipulate that the contracting authority is entitled to carry out random verification tests at any time during the term of the contract. If the results of such tests show that the delivered textiles do not meet the criteria, the contracting authority will then be entitled to apply penalties in proportion to the failure and has the option of terminating the contract. Some public authorities include conditions stipulating that if, after the tests, the product meets their requirements, the testing costs must be borne by the public authority; but if the requirements are not met, the costs must be borne by the supplier.

For **framework agreements**, the point at which provision of proof is requested depends on the specific set-up of the framework:

- i. For framework agreements with a single operator where the individual textile products to be delivered are specified when awarding the framework agreement, and the number of units is determined later, the same considerations apply as for the one-off supply contracts described above;
- ii. For framework agreements with multiple operators, bidders will need to demonstrate at the initial tendering stage (i.e. when establishing the framework) their capability to deliver textile products that meet the minimum performance requirements. For ensuing call-off contracts (or orders) that are awarded following competition amongst the framework members, if the scope of the contract includes textiles for which test reports have not previously been submitted, then these should be requested prior to contract award and/or during contract execution.

KEY ENVIRONMENTAL IMPACTS – TEXTILE PRODUCTS AND SERVICES

The criteria for textiles focus on the most significant environmental impacts along the life cycle of the products, which are divided into five categories:

1. fibre sourcing
2. chemical restrictions
3. durability and lifespan extension
4. energy conservation during use
5. design for reuse and recycling

The diversity of textile fibres that may be used, as well as the many different types of textile products and end-use applications, and a wide range of associated environmental impacts, mean that a number of points along the life cycle need addressing. Analysis of the life cycle of textile products suggests that the following 'hot spot' areas of significant environmental impact should be the focus for improvement:

- **Cotton production:** the ecotoxicity associated with the production and use of fertilisers and pesticides is the main contributor to both energy consumption and ecotoxicity. The resource impact of water use for irrigation is also highlighted as being significant;
- **Wool production:** the washing (scouring) of wool can release grease, suint and ectoparasiticides into wastewater, with associated ecotoxicity, as well as requiring significant process energy use;
- **Synthetic fibre production:** the climate change and ecotoxicity impacts of energy and raw materials used to manufacture the

fibres are high. Nylon (polyamide) is the most energy-intensive fibre to produce and technically the most difficult to recycle;

- **Man-made cellulose fibre production:** the climate change and ecotoxicity impacts of energy use in manufacturing these fibres are high. This type of fibre is mainly derived from timber and the environmental impacts associated with unsustainable forestry practices and illegal logging are potentially significant;
- **Process energy and ecotoxicity associated with the spinning, weaving, dyeing, printing and finishing stages of production:** the multiple production stages in the supply chain for textile products are associated with production chemicals and energy use in processes. Production chemicals and washed-out residues may pollute air and wastewater;
- **Energy and ecotoxicity associated with the use phase of textile products:** these impacts relate primarily to washing energy and detergents, and can be influenced by fibre choice and blends. Comparative studies of industrial and domestic washing and drying suggest that industrial laundries tend to be more efficient than domestic washing/drying and therefore have the potential to reduce use phase impacts;
- **Human toxicity associated with production and functional chemicals:** chemicals used in production processes can also be a hazard to human health, either to workers at production sites or if the chemicals remain on the final product, creating the potential for exposure of the end user. There are also significant potential environmental benefits from product lifetime extension and more circular systems of resource use associated with the disposal (end-of-life) phase. Environmental benefits can be allocated as a result of durability, reuse, recycling and energy recovery activities.

KEY ENVIRONMENTAL IMPACTS

- Effects on the aquatic environment due to the use of hazardous fertilisers and pesticides during the cultivation of natural fibres.
- Hazardous effects on the aquatic environment due to substances used during the processing of intermediate and final textile products.
- The use of biotic and abiotic resources from forestry, petroleum and natural gas to manufacture fertilisers and fibres.
- Greenhouse gas emissions, acidification and smog resulting from the production and use of electricity and natural gas used to manufacture synthetic fibres and to wash, dry and iron textiles.
- Early product failure which can result in the consequent waste of biotic and abiotic resources, and their landfilling or burning with potential for hazardous emissions to air and water.



GPP APPROACH

- Purchase textiles made from fibres which are produced using fewer fertilisers, hazardous pesticides and production chemicals.
- Purchase textiles that contain recycled materials and fibres.
- Purchase textiles with a reduced use of environmentally harmful and hazardous substances in their production.
- Purchase textiles that require less energy for drying and ironing.
- Purchase colour-fast fabrics that do not shrink during use, that are constructed to be more durable in use and which have longer-lasting functional coatings.
- Contract services that minimise the energy used to wash, dry and iron textiles.
- Contract services that maintain textiles in order to extend their lifetime.
- Contract services that maximise the potential for reuse and recycling of textiles at the end of their service life.

Please note that the order of environmental impacts above does not necessarily correspond to their importance.

1. GPP CRITERIA FOR TEXTILE PRODUCTS

SUBJECT MATTER

Supply of textile products with reduced environmental impact

A CAPACITY OF SUPPLIERS

CORE CRITERIA

COMPREHENSIVE CRITERIA

SC1. Capacity to ensure traceability of fibres and chemical management

Tenderers must be able to demonstrate the resources, expertise, documented procedures and management systems they have in place to address the following aspects of the product and its supply chain:¹

- **TEXTILE FIBRE ORIGIN:** systems that allow for the traceability of the source, content and production systems of natural and manmade fibres for which environmental criteria will apply. This includes transaction records that allow for verification and traceability from the origin of the raw material or feedstock to manufacturing and processing of yarn and greige fabric.² This may include the use of third-party certifications of origin and traceability.
- **CHEMICAL MANAGEMENT:** the implementation of a restricted chemical substance list, including communication of the list to dyeing, printing and finishing sites, monitoring of the compliance of production sites, and monitoring of the compliance of final products, including laboratory testing. The use of auditors for site visits, textile compliance schemes and laboratories for product testing that are accredited to international standards (e.g. ISO 17025, ISO 17065, ISO 19011 or equivalent) will also be required.

Verification: Tenderers must describe the systems and resources that they have in place to monitor and verify textile fibre origin and chemical management. This should include systems of documentation, auditing and analysis used to monitor compliance of suppliers and the final product. The resourcing and expertise that will be used to manage compliance must be confirmed. Relevant examples must be provided from previous contracts showing how these two aspects have been managed and verified.

¹ The possibility to require evidence of supply chain management capabilities was introduced by Part II (d) of Annex XII to Directive 2014/24/EU on Public Procurement.

² Greige is an unbleached and undyed, unfinished textile fabric which may be purchased as a commodity.

B TEXTILE FIBRES

CORE CRITERIA	COMPREHENSIVE CRITERIA
TECHNICAL SPECIFICATIONS	
<p>TS1. Cotton fibres</p> <p>A minimum of 20% of the content of cotton goods used to fulfil the contract must be either:</p> <ol style="list-style-type: none"> Organic: grown according to the requirements laid down in <i>Regulation (EU) 2018/848</i>,³ the US <i>National Organic Programme</i> (NOP) or equivalent legal obligations set by trade partners of the EU; or Integrated Pest Management (IPM): grown according to IPM principles as defined by the UN Food and Agricultural Organisation (FAO) IPM programme⁴ or <i>EU Directive 2009/128/EC</i>.⁵ <p>Verification: Tenderers must provide a statement confirming their compliance with these requirements. The cotton origin and content of the goods must be verified upon delivery by means of a third-party certification scheme for IPM or organic cotton production together with documented transaction records that allow for the cotton content of individual items or batches of goods to be verified and traced back to the point of certification. This includes valid certification for organic or IPM production,⁶ as well as documented transactions that demonstrate the purchase of the claimed cotton content and provide traceability.</p>	<p>TS1. Cotton fibres</p> <p>A minimum of 60% of the content of cotton goods used to fulfil the contract must be either:</p> <ol style="list-style-type: none"> Organic: grown according to the requirements laid down in <i>Regulation (EU) 2018/848</i>,⁷ the US <i>National Organic Programme</i> (NOP) or equivalent legal obligations set by trade partners of the EU; or Integrated Pest Management (IPM): grown according to IPM principles as defined by the UN Food and Agricultural Organisation (FAO) IPM programme⁸ or <i>EU Directive 2009/128/EC</i>.⁹ <p>Verification: Tenderers must provide a statement confirming their compliance with these requirements. The cotton origin and content of the goods must be verified upon delivery by means of a third-party certification scheme for IPM or organic cotton production together with documented transaction records that allow for the cotton content of individual items or batches of goods to be verified and traced back to the point of certification. This includes valid certification for organic or IPM production,¹⁰ as well as documented transactions that demonstrate the purchase of the claimed cotton content and provide traceability.</p>
<p>EXPLANATORY NOTE: The limited availability of organic cotton on the world market can pose a challenge for public contracts. On the other hand, public contracts can play an important role in fostering greater demand and thereby increasing supply. To address this challenge, it is recommended that early market consultation and/or prior information notices are used to notify potential bidders of upcoming contracts and the likely volumes of cotton textiles required. Bidders can also be encouraged to source cotton through agricultural development projects, which in some case may have their own certification schemes (e.g. Cotton Made in Africa), and have the potential to support new sources of organic or IPM cotton.</p>	

³ This Regulation comes into effect on 1 January 2021. Organic products produced prior to that date in accordance with Regulation 834/2007 also comply.

⁴ Further information about IPM is available from the Food Agriculture Organisation (FAO) of the United Nations, here.

⁵ See Annex I to Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides, as amended.

⁶ At the time of writing the following schemes are considered to provide sufficient assurance: Organic: EU recognised organic control bodies, GOTS, IFOAM. IPM: the Better Cotton Initiative (BCI), AGRO 2.1/2.2 (Greece), Cotton Made in Africa, Fair Trade (note that several of these also address traceability/social responsibility issues).

⁷ This Regulation comes into effect on 1 January 2021. Organic products produced prior to that date in accordance with Regulation 834/2007 also comply.

⁸ Further information about IPM is available from the Food Agriculture Organisation (FAO) of the United Nations, here.

⁹ See Annex I to Directive 2009/128/EC establishing a framework for Community action to achieve the sustainable use of pesticides, as amended.

¹⁰ At the time of writing the following schemes are considered to provide sufficient assurance: Organic: EU recognised organic control bodies, GOTS, IFOAM. IPM: the Better Cotton Initiative (BCI), AGRO 2.1/2.2 (Greece), Cotton Made in Africa, Fair Trade (note that several of these also address traceability/social responsibility issues).

CORE CRITERIA

COMPREHENSIVE CRITERIA

TECHNICAL SPECIFICATIONS

TS2. **Wool fibres** (Same for core and comprehensive criteria)

It is recommended to use this criterion only where the wool content of the textile products is greater than 50%.

The wastewater discharges from wool scouring, either directly from treatment on-site or indirectly from off-site wastewater treatment, measured in g COD (chemical oxygen demand)/kg greasy wool, must be ≤ 25 g for coarse wool and lambswool and ≤ 45 g for fine wool.¹¹

Verification: Tenderers must provide a statement confirming their compliance with these requirements. The contractor must, upon delivery of the goods, provide data demonstrating compliance with this requirement for the specific processing lots. COD calculations relate to the wool throughput in kg to the wastewater flow in litres from each processed lot of wool. Monitoring data must be obtained by third party testing according to ISO 6060 or equivalent of wastewater from each wool scouring site that wool is purchased from. Transaction records must be provided that verify the wool scouring site for the wool used to manufacture the products.

TS3. **Man-made cellulose fibre** (e.g. viscose, modal, lyocell)

This type of fibre may be used instead of cotton in a variety of clothing items or interior textiles requiring a softer handle. It may also be blended with synthetic fibres to improve wear and make it easier to dry. It is recommended to use this criterion only where the man-made cellulose fibre content of the textile products is greater than 50%.

TS3.1 **SULPHUR EMISSIONS TO AIR** (same for core and comprehensive criteria)

For viscose and modal fibres, the sulphur content of the emissions of sulphur compounds to air from the fibre production process, expressed as an annual average, must not exceed the values in Table A.

Fibre type	Performance value (g S/kg)
Staple fibre	30 g/kg
Filament fibre	40 g/kg
<ul style="list-style-type: none"> • Batch washing • Integrated washing 	170 g/kg

Table A. Viscose and modal sulphur emissions values

Verification: Tenderers must provide a statement confirming their compliance with these requirements. The contractor must, upon contract award, provide monitoring data, transaction records and batch production records demonstrating the compliance of supplier(s) and associated production sites used to manufacture the fibres used in the contract. Compliant monitoring data must be provided for those production sites used to make the specific fibre products to be used in execution of the contract.

¹¹ Fine wool is defined as merino wool of ≤ 23.5 micron in diameter.

CORE CRITERIA	COMPREHENSIVE CRITERIA
TECHNICAL SPECIFICATIONS	
	<p>TS3. Man-made cellulose fibre (e.g. viscose, modal, lyocell)</p> <p>TS3.2 BLEACHING – ELEMENTAL CHLORINE</p> <p>Pulp used to manufacture the fibre products used in the contract must be bleached without the use of elemental chlorine. The resulting total amount of chlorine and organically bound chlorine in the finished fibres (OX) must not exceed 150 ppm; alternatively, the wastewater from pulp manufacturing (AOX), must not exceed 0.170 kg/t air dried pulp.</p> <p>Verification: Tenderers must provide a statement confirming their compliance with these requirements. The contractor must, upon contract award, provide a test report for the specific fibre products and production lines demonstrating compliance with either the OX or the AOX requirement, using the appropriate test method or equivalent:</p> <ul style="list-style-type: none"> • OX: ISO 11480 (controlled combustion and microcoulometry). • AOX: ISO 9562.
<p>NOTE ON SUSTAINABLE SOURCING OF WOOD PULP:</p> <p>These GPP criteria do not include a proposal on the sourcing of wood pulp derived from sustainable forestry, for the following reasons: Several Member States are using their own green or sustainable public procurement criteria to define sustainable forest management and have different processes in place to determine whether certification or other third party verified schemes provide sufficient assurance. In this situation, it was not possible, within the framework of this criteria development process, to provide a harmonised definition of sustainable managed forestry. The current consensus of the Member States with an active sustainable timber procurement policy is that, in general, proprietary certification schemes, such as those of the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) provide sufficient levels of assurance for compliance with their national criteria.</p>	

CORE CRITERIA	COMPREHENSIVE CRITERIA
TECHNICAL SPECIFICATIONS	
	<p>TS4. Polyester recycled content</p> <p>Polyester fibre product(s) to be used in fulfilment of the contract must be manufactured using a minimum recycled content of 20%.</p> <p>Verification: Tenderers must provide a statement confirming their compliance with these requirements. The contractor must, upon contract award, provide information in accordance with part 4.4 of EN 15343 on the recycled content and its traceability, for the production lines of the products to be delivered and the recycle feedstock. ISO 14021, ISO 9001 or equivalent may be used.</p> <p>NOTE: <i>The contracting authority should confirm that the use of recycled polyester content is suitable given its other technical requirements. This may be addressed through independent advice and/or consultation with bidders at the pre-procurement stage.</i></p>

B TEXTILE FIBRES

CORE CRITERIA	COMPREHENSIVE CRITERIA
AWARD CRITERIA	
	<p>AC1. Polyester and polyamide (nylon) recycled content</p> <p>Up to [X] marks will be awarded for polyester and/or nylon fibre product(s) to be used in fulfilment of the contract for each additional increment of 10% greater than a minimum recycled content of 20% pre-consumer and/or post-consumer waste.</p> <p>Verification: Tenderers must provide a statement confirming their compliance with these requirements. The contractor must, upon contract award, provide information in accordance with part 4.4 of EN 15343 on the recycled content and its traceability, for the production lines of the products to be delivered and the recycle feedstock. ISO 14021, ISO 9001 or equivalent may be used.</p> <p>NOTE: <i>The contracting authority should confirm that the use of recycled polyester content is suitable given its other technical requirements. This may be addressed through independent advice and/or consultation with bidders at the pre-procurement stage.</i></p>

CORE CRITERIA	COMPREHENSIVE CRITERIA
AWARD CRITERIA	
	<p>AC2. Polyester recycling</p> <p>Up to [X] marks will be awarded to tenderers that can demonstrate:</p> <ul style="list-style-type: none"> • that the design of the final textile product facilitates ease of separation for polyester fabrics at the end of a product's service life; • the provision of a voluntary take-back route for the textile product so that the contracting authority can return polyester fabrics to be recycled or reused. <p>Verification: Tenderers must provide details of:</p> <ul style="list-style-type: none"> • the design measures and features that will facilitate ease of fabric separation for recycling, and/or; • the take-back arrangements and a written commitment that extends in time to cover the end-of-life of the products.

C CHEMICAL RESTRICTIONS

CORE CRITERIA	COMPREHENSIVE CRITERIA
TECHNICAL SPECIFICATIONS	
	<p>TS5. Substances on REACH candidate list</p> <p>The tenderer must declare the presence of any substances on the REACH Candidate List for substances of very high concern¹² at a concentration of greater than 0.1 % (by weight) in the finished product.</p> <p>Verification: The contractor must provide a valid REACH Article 33(2) declaration upon delivery of the finished article(s). If Candidate List substances are declared as being present, they must be identified.</p>

¹² The REACH candidate list is available on the ECHA website [here](#).

CORE CRITERIA	COMPREHENSIVE CRITERIA
TECHNICAL SPECIFICATIONS	
	<p>TS6. Substances to be tested for on the final product</p> <p>The final supplied product must not contain the substances listed in Annex 1 at greater than the individual or sum total concentration limits. This must be demonstrated by laboratory testing of a sample of each product type supplied during execution of the contract. The contracting authority reserves the right to request a further random check.</p> <p>Verification: Tenderers must provide a statement confirming their compliance with these requirements. Each product sample must be analysed by a laboratory accredited to carry out the relevant tests according to ISO 17025 or by the accreditation body for a textile testing scheme that requires product testing. Certificate(s) demonstrating compliance must be provided upon delivery of the goods. Where the test methods are the same, test results from valid Type I ecolabels, including the EU Ecolabel, Oeko Tex 100, Bluesign and GOTS will be accepted.</p>
AWARD CRITERIA	
	<p>AC3. Restrictions on substances to be verified at production sites</p> <p>Marks will be awarded to tenderers who restrict use of the substances listed in Annex 2 in dyeing, printing and finishing production processes for the supplied product(s).</p> <p>Verification: Tenderers must provide a statement confirming their compliance with these requirements. The contractor must provide a valid site audit report carried out by a third party verifying the production formula used at the dyeing, printing and finishing sites for the product. The audit report must be not older than two years and must include:</p> <ul style="list-style-type: none"> i. findings from inspections of chemical stores and the operation of production processes; ii. confirmation of the formulations used, and; iii. results of analytical testing (if carried out) at each site.

D DURABILITY AND LIFESPAN EXTENSION

CORE CRITERIA

COMPREHENSIVE CRITERIA

TECHNICAL SPECIFICATIONS

TS7. **Durability standards**

Textile products must meet the relevant durability requirements identified in Annexes 2 and 3. In the case of functional workwear that can demonstrate inherent performance characteristics that negate the need for water, dirt or stain repellents and/or flame-retardant treatments to be applied to the textile fabric, the product will be exempted from testing requirements 3.7 and/or 3.8 in Annex 3.

Verification: Tenderers must provide a statement confirming their compliance with these requirements. For each distinct product or item of workwear to be supplied, the contractor must provide upon delivery of the goods reports from tests carried out in accordance with the standards specified in Annex 3. The reports will verify that each product type or model meets the specified durability requirements.

TS8. **Availability of parts and accessories**

The contractor must make spares available of all parts and accessories (e.g. zips, buttons, fasteners) that form part of the products to be supplied for a minimum of two years after product delivery or the duration of the supply contract (whichever is the longest). A price list for these parts and accessories must also be provided as part of the tender.

Verification: Tenderers must provide a statement confirming their compliance with these requirements, along with a price list for all parts and accessories which may be replaced.

NOTE: *If the contracting authority intends to evaluate the cost of spare parts/accessories as part of the financial evaluation of tenders, this must be clearly stated. See Section 3 on life-cycle costing for further information.*

E ENERGY CONSERVATION DURING USE

CORE CRITERIA	COMPREHENSIVE CRITERIA
TECHNICAL SPECIFICATIONS	
<p>TS9. Fabric selection to minimise energy use for drying and ironing <i>For textiles that will be washed on a daily or weekly basis</i></p> <p>The fabric will be selected to have a moisture retention content after spinning of less than 35% and a fabric smoothness grade after drying of SA3 for fabrics with cotton content of ≥50 % and SA4 where the cotton content is <50%.</p> <p>Verification: Tenderers must provide a statement confirming their compliance with these requirements. The contractor will upon delivery of the goods provide a test report demonstrating the fabric(s) performance according to the following methods:</p> <ul style="list-style-type: none"> • moisture retention content: EN ISO 15797 (or equivalent) washing procedure. • easy care: EN ISO 15487 (or equivalent) appearance after washing and drying. 	
<p>TS10. Care labelling <i>For textiles intended to be washed at home</i></p> <p>The textile care labelling must promote washing at lower temperatures, if possible at 30°C or less, and using the washing machine’s low energy programme, unless there is a technical reason otherwise (e.g. hygiene, safety, soiling).</p> <p>Verification: The tenderer must provide examples of the care labelling and additional instructions to the user and provide, if applicable, information on why textiles should be washed at higher temperatures than 30°C.</p>	

F DESIGN FOR REUSE AND RECYCLING

CORE CRITERIA	COMPREHENSIVE CRITERIA
AWARD CRITERIA	
<p>AC4. Design for reuse and recycling</p> <p>Marks will be awarded for garments which are designed so that any logos or distinctive identification features can be easily removed or overprinted without damaging the item.</p> <p>Verification: Tenderers must provide a statement confirming their compliance with these requirements. The contractor must upon delivery of the goods provide clear, easy to understand instructions for reuse contractors on how to remove or overprint logos or branding.</p>	

2. GPP CRITERIA FOR TEXTILE SERVICES

SUBJECT MATTER

The provision of textile services with reduced environmental impact

A CAPACITY OF SERVICE PROVIDERS

CORE CRITERIA

COMPREHENSIVE CRITERIA

SC1. **Environmental technical capacity**

Tenderers must be able to demonstrate the resources, expertise, documented procedures and management systems¹³ that they have in place in order to address the following aspects of the services to be provided:

(to be selected as appropriate to the tender)

FOR LAUNDRY SERVICES:

- The implementation of energy management systems according to ISO 50001 or equivalent
- Staff training and awareness programmes on energy efficiency
- Equipment and procedures which maximise process energy efficiency
- sub-metering that allows for the management and reporting of specific energy consumption for different processes

FOR MAINTENANCE SERVICES:

- The management of services to repair and maintain garments and fabrics in order to maximise their lifespan
- The implementation of asset management systems for inventories of textiles which allow for data and feedback from end users on the condition and lifespan of the textiles to be collected. These systems will have been actively used to identify the frequency and causes of fabric and garment failure

¹³ The possibility to require evidence of supply chain management capabilities was introduced by Part II (d) of Annex XII to Directive 2014/24/EU on Public Procurement.

CORE CRITERIA	COMPREHENSIVE CRITERIA
<p>SC1. Environmental technical capacity (continued) FOR TAKE-BACK (END-OF-LIFE MANAGEMENT) SERVICES:</p> <ul style="list-style-type: none"> • The implementation of asset management systems and infrastructure that support the segregation into specific different streams, storage and sale of specific textile products and fabrics in order to maximise their reuse and recycling • The provision of design advice to contracting authorities in order to facilitate ease of reuse and recycling. The provision of training in how to segregate end-of-life textiles to employees of the contracting authority <p>Verification: Tenderers must confirm that they have the required systems and capabilities. Relevant examples from previous contracts must be provided and the internal resourcing, management systems and infrastructure that will be used to manage compliance and provide the services described. Where it is deemed appropriate, the contracting authority reserves the right to carry out site visits and inspections, or to request third party inspections, in order to confirm the tenderer’s capabilities.</p>	

B LAUNDRY SERVICES

CORE CRITERIA	COMPREHENSIVE CRITERIA
<p style="text-align: center;">TECHNICAL SPECIFICATION</p>	
<p>TS1. Fabric selection to minimise energy use for drying and ironing (Same for core and comprehensive criteria) <i>For textiles that will be washed on a daily or weekly basis</i></p> <p>The textile fabrics will be selected to have a moisture retention content after spinning of less than 35% and a fabric smoothness grade after drying of SA3 for fabrics with cotton content of ≥50 % and SA4 where the cotton content is <50%.</p> <p>Verification: The tenderer must provide a test report demonstrating the fabric(s) performance according to the following methods:</p> <ul style="list-style-type: none"> • Moisture retention content: EN ISO 15797 (or equivalent) washing procedure • Easy care: EN ISO 15487 (or equivalent) appearance after washing and dying 	

CORE CRITERIA	COMPREHENSIVE CRITERIA
AWARD CRITERIA	
<p>NOTE ON LAUNDRY ENERGY AND DETERGENT USE AWARD CRITERIA: <i>It is recommended to combine the criteria on energy consumption and detergent environmental impact and to weigh the total points awarded on the following basis:</i></p> <ul style="list-style-type: none"> • <i>Criterion AC1: Energy consumption: 75%</i> • <i>Criterion AC2: Detergent environmental impact: 25%</i> <p><i>Monitoring must be carried out in accordance with contract performance clause CPC1.</i></p>	
	<p>AC1. Specific energy consumption</p> <p>Tenderers will be awarded marks according to the proposed specific energy consumption in kWh (electricity plus gaseous and liquid fuels) per kg of textile products washed, dried and finished (as appropriate) that will be achieved during provision of the service. The points will be awarded in linear proportion to the proposals received, from the lowest (100% of available points) to the highest (zero points).</p> <p>Verification: Tenderers must describe their methods for sub-metering of each washing, drying and finishing process line that will be used in providing the service. They must also describe the measures which will be taken to reduce energy consumption over the lifetime of the contract.</p>
	<p>AC2. Detergent environmental impact</p> <p>Tenderers will be awarded marks if they commit to the use of detergents in execution of the contract that meet the aquatic toxicity and biodegradability criteria of the EU Ecolabel for Institutional Laundry Detergents¹⁴ or equivalent biodegradability criteria. The criteria can be found <i>here</i>. Tenderers making the commitment in respect of all detergents will be awarded the maximum available marks, those which commit in respect of none of the detergents used will receive zero marks, and other offers will be scored proportionately.</p> <p>Verification: Tenderers must provide a list of the detergents to be used in carrying out the contract and confirm whether they meet the above criteria. Products which hold the relevant EU Ecolabel or an equivalent Type 1 ecolabel will be deemed to comply.</p>

¹⁴ Commission Decision 2017/1219 establishing the EU Ecolabel criteria for industrial and institutional laundry detergents, amended by Decisions 2018/993 and 2019/418

CORE CRITERIA	COMPREHENSIVE CRITERIA
CONTRACT PERFORMANCE CLAUSES	
	<p>CPC1. Specific energy consumption and detergents</p> <p>The service provider must carry out the services according to the proposed specific energy consumption and compliant detergent use which it committed to in its tender. The tenderer must provide the following forms of verification:</p> <ul style="list-style-type: none"> • monthly metered energy consumption data aggregated from the sub-metered process lines at related sites • copies of invoices for detergent purchases together with proof that the detergent(s) either: <ul style="list-style-type: none"> i. have the EU Ecolabel; or ii. have a Type I ecolabel which contains equivalent criteria; or iii. meet the specified EU Ecolabel criteria.

C MAINTENANCE

CORE CRITERIA	COMPREHENSIVE CRITERIA
TECHNICAL SPECIFICATION	
<p>TS2. Maintenance of the textile assets</p> <p><i>This requirement could be combined with or formulated as an award criterion rewarding the most ambitious maintenance approach.</i></p> <p>The service provider, as part of their asset management plan, will extend the useful life of textiles by providing ongoing maintenance and repair services. This will, as a minimum, include (as relevant to the textiles to be provided):</p> <ul style="list-style-type: none"> • provision of basic repairs, including repairing seam splits and stitching, the replacement of broken/lost parts and the fixing/replacement of zips and fastenings; • fabric panel replacement for workwear; • the retreating and proofing of functional coatings. <p>Verification: Tenderers must provide a detailed description of the maintenance services offered and the maintenance facilities that they operate or will subcontract to provide the required services.</p>	

D TAKE-BACK SYSTEM

CORE CRITERIA

COMPREHENSIVE CRITERIA

TECHNICAL SPECIFICATIONS

TS3. **Take-back system**

This could also be combined with or formulated as an award criterion rewarding the most ambitious take-back approach

The service provider must operate a take-back system, or put in place formal arrangements with a take-back scheme, for the textiles supplied under the contract, to include the following elements:

- collection systems installed in the contracting authority's own premises to facilitate (where appropriate) the sorting and classification of textilest
- training and guidance material to ensure that staff of the public authority have a clear understanding of how to use the system
- post-collection sorting activities in order to maximise the value obtained from reuse or recycling

Tenderers must provide an indication of the likely end markets for the textiles recovered.

Verification: Tenderers must provide a description of the proposed system including, where relevant, documentation for post-collection systems they operate, including specifications for sorting lines.

CONTRACT PERFORMANCE CLAUSE

CPC2. **Take-back system**

The service provider must report on the performance of their take-back system in accordance with the following requirements:

- Surveys will be carried out of staff at the contracting authority's facilities to determine how easy it has been to use the collection/ segregation systems. These will be carried out within the first six months of the services and the findings used to identify/ implement potential improvement measures
- The proportion by weight of the collected textiles that have been reused or recycled and the associated CO2e savings will be determined and recorded on an annual basis

The service provider will provide a short summary of the staff survey findings and the potential improvement measures identified. An annual report providing a breakdown of the destination of the textiles and the value obtained from each end market will be provided.

LIFE CYCLE COSTING

Life cycle costing (LCC) is a technique that can be used to estimate the total cost of ownership for textile products (and possibly some of the environmental externalities).¹⁵ It is a method for making effective, long-term investment decisions since some cost aspects may not be immediately apparent to the decision maker, e.g. a higher initial investment may be required to achieve lower life-cycle costs, based on lower laundry energy costs and improved durability with associated longer lifespans and lower repair costs. When externalities are taken into consideration, LCC is particularly relevant to achieving an improved environmental performance.

The GPP criteria for textiles address a number of aspects of the design and specification of textile products that, with careful consideration at the procurement stage, can serve to reduce the life cycle costs associated with their laundering, maintenance and end of life:

Laundering: the cost of energy associated with washing, drying and ironing textile products will either be a direct cost to the public authority (if it operates the laundry) or an indirect cost passed on by contractors (if laundry services are outsourced). Textile product specifications can have a significant influence on the energy required per laundry cycle. The fibre composition of textiles has a significant impact on the amount of energy that is required to wash, dry and iron them. For example, workwear or interior textiles made from cotton-synthetic blends can reduce the energy needed for each laundry cycle, and therefore also the costs, by up to an indicative 50% compared with the same products made from 100 % natural fibres.

Lifespan: there are many factors that can influence the lifespan of a textile product. These include its resistance to wear and early failure, and the provision of proper care and maintenance (particularly in the case of technical products with special properties) in order to avoid early replacement:

- Resistance to wear during use and laundry cycles is strongly influenced by fibre composition. A more resistant fibre composition can extend a textile

product's lifespan by, indicatively, between 34% (in the case of workwear) and 100% (in the case of towels and bed sheets) when compared with a 100% cotton item.

- The early failure of seams and finishes, as well as closures such as zips, buttons, Velcro and fasteners, can require expensive repairs and treatments, or lead to the early discarding of workwear and uniforms. Whilst product planning might typically be based on up to a two-year lifespan, through better design and durable specifications there is the potential to increase this to up to three years, with associated reductions in maintenance and replacement costs.

End of life: the disposal of textiles at the end of their useful life is a cost burden for public authorities, who will have to pay by weight. End of life textiles may be worth up to €250-560/tonne. There is demand both for further use in their original form (e.g. as second-hand workwear) and as raw materials for use in the manufacturing of new textiles or other products (e.g. insulation material). This can result in a positive or neutral value for textile waste arisings.

Public authorities can take active steps to increase the value of end-of-life textiles, for example, by implementing systems to segregate end-of-life textiles into different specific streams, or by requiring a design for easy removal of logos.

By taking into account a combination of these factors, the 'total cost of ownership' for each textile item procured can be reduced. One way of controlling these factors is to move from the procurement of textile products to textile services. Performance can then be specified for each stage in the life cycle of the textile products used. Contractors then become responsible for optimising the cost of delivering these services, which would otherwise entail additional overheads and sub-contracts for public authorities.

¹⁵ Further information on LCC is included in the EPA guidance document accompanying these criteria.

ANNEX 1: FINAL PRODUCT SUBSTANCE RESTRICTIONS

SUBSTANCE GROUP	RESTRICTIONS THAT APPLY	CONCENTRATION LIMITS	TEST METHOD
1.1 AZO DYES Applicability: Clothing containing acrylic, cotton, polyamide and wool	Azo dyes that may cleave to aromatic amines that are known to be carcinogenic must not be used (see the list in Appendix 2 of the EU Ecolabel criteria ¹⁶). A limit value for aryl amines will apply for the purpose of testing the final product.	30 mg/kg for each amine	EN 14362-1 and 3 or equivalent.
1.2 FORMALDEHYDE Applicability: All clothing and interior textiles containing natural fibres	The following limit values apply to residual formaldehyde on the finished product: <ul style="list-style-type: none"> • Products for babies and children under 3 years old • All other products Improved performance for skin contact garments could additionally be requested as an award criterion. ¹⁷ The following requirement can be applied as a comprehensive criterion for interior textiles only: <ul style="list-style-type: none"> • Emissions from the final product 	16 ppm 75 ppm	EN ISO 14184-1 or equivalent.
	The following requirement can be applied as a comprehensive criterion for interior textiles only: <ul style="list-style-type: none"> • Emissions from the final product 	0.1 mg/m ³	EN 16516 and EN ISO 14184-1 or equivalent
1.3 AUXILIARIES Applicability: All products	The following substances must not be present on the final product: <ul style="list-style-type: none"> • Nonylphenol • Octylphenol 	100 mg/kg sum total	Solvent extraction followed by HPLC/MS
	The following substances must not be present on the final product: <ul style="list-style-type: none"> • Nonylphenol ethoxylates • Octylphenol ethoxylates 	100 mg/kg sum total	ISO 18254

¹⁶ Commission Decision 2014/350/EU on the EU Ecolabel Criteria for Textile Products, as amended by Decision 2017/1392

¹⁷ There may be a trade-off in terms of the quality and durability of stay-press garments, particularly where garments are to be subject to high temperature washing.

SUBSTANCE GROUP	RESTRICTIONS THAT APPLY	CONCENTRATION LIMITS	TEST METHOD
<p>1.4 COATINGS, LAMINATES AND MEMBRANES</p> <p>Applicability: Where incorporated into textile structure</p>	<p>Coatings, plastisol printing, laminates, membranes and plastic accessories must not contain the following phthalates:</p> <ul style="list-style-type: none"> • DEHP (Bis-(2-ethylhexyl)-phthalate) - BBP (Butylbenzylphthalate) • DBP (Dibutylphthalate) • DMEP (Bis2-methoxyethyl) phthalate • DIBP (Diisobutylphthalat) • DIHP (Di-C6- 8-branched alkylphthalates) • DHNUP (Di-C7- 11-branched alkylphthalates) • DHP (Di-n-hexylphthalate) 	<p>Sum total 0.10 % w/w</p>	<p>EN ISO 14389 or equivalent.</p>

ANNEX 2: PRODUCTION PROCESS SUBSTANCE RESTRICTIONS

SUBSTANCE GROUP	RESTRICTIONS THAT APPLY	VERIFICATION REQUIREMENTS
2.1 DYES AND PIGMENTS	The following dyes and pigments must not be used in textile production: Acid Red 26, Direct Black 38, Disperse Blue 1, Basic Red 9, Direct Blue 6, Disperse Orange 11, Basic Violet 14, Direct Red 28, Disperse Yellow 3, Pigment Red 104, Pigment Yellow 34	Site audit at which the dyes used are to be identified.
2.2 AUXILIARIES	The following substances must not be used in textile production: - bis(hydrogenated tallow alkyl) dimethyl ammonium chloride (DTDMAC) - distearyl dimethyl ammonium chloride (DSDMAC) - di(hardened tallow) dimethyl ammonium chloride (DHTDMAC) - ethylene diamine tetra acetate (EDTA) - diethylene triamine penta acetate (DTPA) - 4-(1,1,3,3-tetramethylbutyl) phenol - 1-Methyl-2-pyrrolidone - Nitrotriacetic acid (NTA)	Site audit at which the chemical used as auxiliaries are to be identified.
2.3 BLEACHING	Chlorine based bleaches must not be used for the bleaching of any yarns, fabrics or knitted panels. Site audit at which the bleaches used are to be identified.	Site audit at which the bleaches used are to be identified.
2.4 WATER, STAIN AND OIL REPELLENT TREATMENTS	Core requirement: Long chain ($\geq C5$) perfluoroalkane sulfonic acids or sulfonates (PFSA) and ($\geq C7$) perfluoroalkyl carboxylic acids or carboxylates (PFCA) substances must not be used. Comprehensive requirement: Fluorinated water, stain and oil repellent treatments must not be used, unless these functions are required in combination. <i>In addition, for both core and comprehensive criteria the garment(s) must be tested for durability (see Criterion 3.1)</i>	Site audit at which the repellents used for the finishes are to be identified.
2.5 WATERPROOF MEMBRANES	Fluoropolymer membranes and laminates used for outdoor clothing must not be manufactured using perfluorooctanoic acid (PFOA) or any longer chain fluorinated surfactants.	Site audit of the membrane/ laminate supplier or documentation from a government regulatory body.
2.6 FLAME RETARDANTS	Core requirement: The following flame retardants must not be used: - HBCDD <ul style="list-style-type: none"> • Hexabromocyclododecane • DecaBDE • Decabromodiphenyl ether • TEPA – Tris(aziridinyl) phosphin oxide • TRIS – Tris (2,3 dibromopropyl) phosphate • TCEP – Tris (2, chloroethyl) phosphate • Paraffin, C10-C13, chlorinated (SCCP) Comprehensive requirement: Where fire protection is required the fabric must be tested to ensure it provides a high level of durability (see Criterion 3.1)	Site audit at which the flame retardants used are to be identified.

ANNEX 3: DURABILITY TESTS

2.1 INDICATIVE APPLICABILITY OF THE TEXTILE DURABILITY PERFORMANCE REQUIREMENTS

PRODUCT TYPE	Dimensional change	Washing colour fastness	Perspiration colour fastness	Wet rubbing colour fastness	Tensile strength	Seam strength	Water, dirt and stain repellency	Flame retardancy
Tests applying to all products	✓	✓						
Towels and bed linen	✓	✓			✓			
Uniforms and presentational workwear	✓	✓	✓	✓				
Heavy duty workwear and PPE for field operations	✓	✓			✓	✓		
Functional outwear i.e. jackets, trousers, PPE	✓	✓					✓	✓

2.2 PERFORMANCE BENCHMARKS AND TEST METHODS

CORE PERFORMANCE		
DURABILITY STANDARD	PERFORMANCE BENCHMARKS	TEST METHOD(S)
3.1 DIMENSIONAL CHANGE	Woven fabrics <ul style="list-style-type: none"> • Cotton and cotton mix +/- 3.0% • Wool mix +/- 2.0% • Synthetic fibres +/- 2.0% • Bed linen and towels +/- 8.0% 	EN ISO 6330 (domestic washing) or equivalent or ISO 15797 (industrial laundries) or equivalent in combination with EN ISO 5077 or equivalent after 3 washes.
3.2 WASHING COLOUR FASTNESS	3-4 for colour change and staining	ISO 15797 or equivalent (where applicable) in combination with ISO 105 C06 or equivalent.
3.3 PERSPIRATION COLOUR FASTNESS	-4 for colour change and staining, 4 for dark colours (standard depth > 1/1)	ISO 15797 or equivalent (where applicable) in combination with ISO 105 E04 (acid and alkaline comparison with multi-fiber fabric) or equivalent.
3.4 WET RUBBING COLOUR FASTNESS	Level 2-3	ISO 15797 or equivalent (where applicable) in combination with ISO 105 X12 or equivalent.
3.5 TENSILE STRENGTH	< 50% cotton N (g/m ²) 2.0 50% cotton N (g/m ²) 1.8 Minimum performance 400 N	EN ISO 13935 (Strip method) or equivalent.
3.6 SEAM STRENGTH	100 N at breakdown	EN ISO 13935 (Strip method) or equivalent

COMPREHENSIVE PERFORMANCE		
DURABILITY STANDARD	PERFORMANCE BENCHMARKS	TEST METHOD(S)
3.7 WATER, DIRT AND STAIN REPELLENCY	<p>The following retention of functionality after either 20 domestic cycles at 40°C or 10 industrial cycles at 75°C:</p> <ul style="list-style-type: none"> • Water repellency: 80 out of 90 • Oil repellency: 3.5 out of 4.0 • Stain repellency 3.0 out of 5.0 <p>Industrial washing temperatures may be reduced to 60°C for garments with taped seams.</p>	<p>ISO 6330 (domestic) or equivalent or ISO 15797 (industrial) or equivalent in combination with:</p> <ul style="list-style-type: none"> • Water repellents: ISO 4920 or equivalent • Oil repellents: ISO 14419 or equivalent • Stain repellents: ISO 22958 or equivalent
3.8 FLAME RETARDANCY	<p>Washable products must retain their functionality after 50 wash cycles (Comprehensive criterion).</p> <p>Non-washable products must retain their functionality after a soak test.</p>	<p>ISO 6330 (domestic) or equivalent, or as relevant to the contract requirements EN ISO 10528 (industrial) or equivalent in combination with EN ISO 12138 or equivalent.</p> <p>Where the textile is non-washable and/or non-removable the test method described in BS 5651, section 4 or equivalent must be used.</p>



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