MAN-MADE CELLULOSIC FIBRE (MMCF) SOURCING POLICY

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<td>What's changed?</td>
<td>Adoption of ZDHC MMCF Guidelines</td>
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<tr>
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BACKGROUND

Man-made cellulosic fibres (from herein referred to as MMCFs) are important to the M&S Clothing & Home business, with Viscose being the third most used fibre after Cotton and Polyester. Viscose is the most widely used MMCF, making up about 90% of the global market.

The production of MMCFs can cause negative environmental impacts, some of which have been the subject of consumer-facing NGO campaigns. To address these impacts, M&S recognises three key principles that must be delivered in the responsible sourcing of man-made cellulosic fibres;

1. Sustainably sourced raw material
2. Environmental compliance in fibre/filament manufacturing
3. Supply chain transparency

Sustainably sourced raw material
Approximately 150 million trees are logged annually to produce the feedstock for viscose fibre, and that number is expected to increase within the next decade. It is important M&S sources forest fibres in a way that addresses the major environmental and social impacts of timber harvesting, including;

- Conversion and degradation of ancient and endangered forests and ecosystems
- Free, prior and informed consent of local communities prior to logging
- Deforestation from plantations after 1994
- Illegal logging

M&S, as a partner in the CanopyStyle initiative, is committed to end the sourcing from ancient and endangered forests, endangered species habitat and controversial sources and supports lasting conservation solutions.

M&S also supports the movement towards a circular economy through promoting the use of next generation alternative feedstocks that have a reduced environmental footprint, such as recycled textiles and agricultural residues.

Environmental compliance in fibre/filament manufacturing
To transform wood pulp into a fibre, the pulp undergoes several manufacturing steps of intensive water, chemical and energy use. The manufacture of MMCFs uses potentially hazardous chemicals, which if managed improperly can be harmful to both human health and the environment.

M&S supports the movement towards EU Best Available Techniques (BREFs) manufacturing processes and closed-loop manufacturing through the adoption of the ZDH (Zero Discharge of Hazardous Chemicals) MMCF Guidelines. These guidelines outline integrated expectations for discharge wastewater quality, emissions to air, and chemical recovery for manufacturing facilities producing viscose and modal fibres.
Supply chain transparency
Traceability back to raw material source is key to delivering MMCFs which comply with this policy. M&S supports the movement towards fully traceable MMCFs.

SCOPE
This policy applies to all man-made or regenerated cellulosic fibres, yarns (staple or filament), fabrics and linings used in all Clothing & Home. This includes but is not limited to; rayon, viscose, lyocell, modal, acetate and trademarked versions of these fibres.

This sourcing policy has been developed to align with the existing Marks & Spencer Wood Policy, which aims to address the major environmental effects of wood used in its product.

RATONALE AND OBJECTIVES

• To ensure M&S meets its commitment to improve the environmental impact of key raw materials
• To define minimum standards for the sourcing of man-made cellulosic fibres that address raw material source, environmental impact from fibre manufacture and supply chain transparency
• To ensure due diligence is undertaken with regards to the responsible sourcing of MMCFs

M&S MANDATORY PRINCIPLES FOR SOURCING

All MMCFs must only be sourced from producers with ‘Approved’ status for ‘Overall Compliance’ on the ‘M&S MMCF Supplier Matrix’.

The ‘Overall Compliance’ ranking is maintained and updated by the Technical Services Group Central Plan A Team. It is reviewed annually based on the three key performance indicators listed below, which represent a roadmap to more sustainable MMCF production.

1. Sustainably sourced raw material

By 2020, M&S will only source MMCFs from producers who have undertaken CanopyStyle Audits with an independent accredited third party auditor and achieved a low risk ranking in the Canopy Hot Button Report. This indicates;

• low risk of sourcing from ancient and endangered forests and controversial sources
• Contribution to conservation solutions in the world’s ancient and endangered forests
• Investments in new, innovative use of alternative fibres, such as recycled fabrics & agricultural residues
• Advancement of traceability and transparency efforts in the entire supply chain, from the forest floor to the end-product
• Preference to the FSC (Forest Stewardship Council) as the leading sustainable forest management certification system
Read more about CanopyStyle rankings [here](#).

M&S will preference man-made cellullosic products that are made of 50%+ next generation fibre sources and develop a 2025 procurement target for these products as they become commercially viable.

For any MMCFs which use alternative feedstocks to timber, such as Bamboo Viscose, FSC or alternative certification is required. Contact the TSC team if you have a specific enquiry.

2. Environmental compliance in fibre/filament manufacturing

By 2020, M&S will only source MMCFs from producers whose facilities have undertaken the MMCF Brand Roundtable Self-Assessment Questionnaire and can demonstrate their compliance to environmental and chemical minimum standards:

- It is the responsibility of the MMCF manufacturer to ensure the self-assessment is completed fully, the appropriate supporting documentary evidence is provided and made available to the MMCF Brand Roundtable.
- MMCF Manufacturers must also agree to an in-person visit from a brand representative to verify the Self-Assessment Questionnaire.

M&S is a signatory of the Roadmap to Zero Programme, operated by the ZDHC. From April 2020, M&S will adopt and implement the ZDHC MMCF Guidelines as a performance metric for approved MMCF producers. The guidelines comprise of:

- ZDHC Responsible Fibre Production Guidelines
- ZDHC Interim Wastewater Guidelines
- ZDHC Interim Air Emissions Guidelines
- ZDHC Implementation Guideline

In recognition that not all producer facilities are identical in terms of capabilities, knowledge, strategic priorities or resources, the ZDHC MMCF Guidelines provide a three-level (foundational, progressive, aspirational) approach for the limit values and/or recovery rates of the proposed parameters in each guideline.

M&S requires MMCF producers to implement the guidelines as a continuous improvement programme, as per the ZDHC Implementation Guideline, in the timelines below to maintain status as an approved producer.

<table>
<thead>
<tr>
<th>ZDHC Guideline</th>
<th>Foundational</th>
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<tr>
<td>ZDHC Responsible Fibre Production Guidelines</td>
<td>2021-2022</td>
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<td>ZDHC Interim Wastewater Guidelines</td>
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<td>ZDHC Interim Air Emissions Guidelines</td>
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If an MMCF producer fails to comply with the minimum requirements, we will first engage them to change practices and then re-evaluate our relationship with them. Supplier status, including environmental compliance, will be indicated in the ‘Overall Compliance’ indicator on the ‘M&S MMCF Supplier Matrix’.

3. **Commitment to transition to a closed-loop manufacturing system by 2023-2025.**

M&S will only source from MMCF producers who have committed to transitioning to a closed loop manufacturing system by 2023-2025. This system should aim to recycle the majority of chemicals used during production and prevent the production process from negatively impacting on human health and the environment.

**DEFINITIONS**

**Man-made Cellulosic Fibres (MMCF):** This group of fibres are all derived from cellulose, most commonly from trees, that are processed into pulp before being extruded into a fibre. They include Viscose, Modal, Lyocell and Acetate. Each fibre has a unique production process, making the environmental impacts of each slightly different.

**MMCF Producer:** A manufacturer whose product is MMCF fibre, either staple or filament.

**Viscose:** Viscose is the most abundant MMCF, making up around 90% of global MMCF production. The majority of viscose globally is derived from wood pulp, and the chemical process has received significant negative attention due to its hazardous nature if chemicals are managed improperly, most notably the Carbon Disulphide (CS₂) produced as a by-product.

**PLAN A ATTRIBUTION**

The sourcing of MMCFs from producers with ‘Approved’ status for Overall Compliance on the ‘M&S MMCF Supplier Matrix’ is a minimum compliance requirement and does not qualify for Plan A Preferred Fibre status.

However, M&S recognises the below MMCF branded fibres as Plan A Preferred fibres for their demonstration of high environmental performance and traceability.

- Lenzing TENCEL™ Lyocell or Modal
- Lenzing REFIBRA™
- Lenzing ECOVERO™
- Aditya Birla Excel
- Aditya Birla LivaEco
- Eastman Naia™

Application and verification requirements can be found in the Plan A Attribute Guidelines.
VERIFICATION AND DUE DILIGENCE

1. ‘Approved’ MMCF producer source must be declared on the Fabric Technical Submission.
   - It is vendor responsibility to disclose MMCF Parent Group, Facility name and location(s) on the Fabric or Yarn Technical Submission and Fabric Pre-Production Form and upload this form onto PLM.
   - ‘Approved’ MMCF Parent Group and Facility location(s) can be located on the ‘M&S MMCF Supplier Matrix’.
   - Disclosure of source is mandatory for Fabric or Yarn Technical Submission approval.
   - Technical Services Group Central Plan A Team will conduct due diligence on an ongoing basis by checking Fabric or Yarn Technical Submission forms on PLM.

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<th>YARN DETAILS</th>
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<tr>
<td>Description</td>
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<tr>
<td>Yarn Spinning</td>
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<td>Yarn Count &amp; system (eg. ct)</td>
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<td>Combed / Carded</td>
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<tr>
<td>Open end / Ring / No. of filaments</td>
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<td>Cotton Fibre Country of Origin</td>
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2. Plan A Preferred Fibres must include all verification evidence.
   Application and verification requirements can be found in the Plan A Attribute Guidelines.

LABELLING AND CLAIMS

The sourcing of MMCFs from producers with ‘Approved’ status for Overall Compliance on the ‘M&S MMCF Supplier Matrix’ is a minimum compliance requirement and cannot be accompanied by on-product claims.
APPENDIX 1

RELATED DOCUMENTS

MMCF Supplier Compliance Matrix

MMCF Brand Roundtable Self-Assessment Questionnaire

Fabric Technical Submission

Marks and Spencer Wood Policy

For ZDHC MMCF Guidelines, visit the Marks & Spencer Supplier Exchange: https://supplierexchange1.marksandspencer.com/?_path=%2fhomepage

Ancient and Endangered Forests are defined as intact forest landscape mosaics, naturally rare forest types, forest types that have been made rare due to human activity, and/or other forests that are ecologically critical for the protection of biological diversity. Ecological components of endangered forests are: Intact forest landscapes; Remnant forests and restoration cores; Landscape connectivity; Rare forest types; Forests of high species richness; Forests containing high concentrations of rare and endangered species; Forests of high endemism; Core habitat for focal species; Forests exhibiting rare ecological and evolutionary phenomena. As a starting point to geographically locate ancient and endangered forests, maps of High Conservation Value Forests (HCVF), as defined by the Forest Stewardship Council (FSC), and of intact forest landscapes (IFL), can be used and paired with maps of other key ecological values like the habitat range of key endangered species and forests containing high concentrations of terrestrial carbon and High Carbon Stocks (HCS). (The Wye River Coalition’s Endangered Forests: High Conservation Value Forests Protection – Guidance for Corporate Commitments. This has been reviewed by conservation groups, corporations, and scientists such as Dr. Jim Stritholtt, President and Executive Director of the Conservation Biology Institute, and has been adopted by corporations for their forest sourcing policies). Key endangered forests globally are the Canadian and Russian Boreal Forests; Coastal Temperate Rainforests of British Columbia, Alaska and Chile; Tropical forests and peat lands of Indonesia, the Amazon and West Africa. For more information on the definitions of ancient and endangered forests, please go to: http://canopyplanet.org/index.php?page=science-behind-the-brand

Intact Forest Landscape (IFL) is an unbroken expanse of natural ecosystems within the zone of current forest extent, showing no signs of significant human activity, and large enough that all native biodiversity, including viable populations of wide-ranging species, could be maintained. (http://www.intactforests.org/world.map.html)

Coastal temperate rainforests are rare and only ever covered 0.2% of the planet. On Vancouver Island only 10% of Vancouver Island’s productive old growth rare coastal temperate rainforest remain. These stands of 1,000-year old trees continue to be harvested despite their immense value to local communities for tourism. Their accessibility and beauty are a remarkable global asset and Canopy is working to see these last stands protected. Conservation solutions are now finalized in the Great Bear Rainforest. On February 1st, 2016 the Government of British Columbia, First Nations, environmental organizations and the forest industry
announced 38% protection in the Great Bear Rainforest and an ecosystem-based management approach that will see 85% of this region off limits to logging. Provided these agreements hold – sustainable sourcing has been accomplished in this ancient and endangered forest. We encourage ongoing verification of this through renewal of Forest Stewardship Council certification.

Protection of Boreal Forests where the largest remaining tracts of forests are located worldwide is critical and dissolving pulp is becoming an increasing threat. Canada’s Boreal Forest contain the largest source of unfrozen freshwater world wide and are part of the world’s largest terrestrial carbon sink – equivalent to 26 years worth of global fossil fuel use. Canopy is committed to working collaboratively on the establishment of new protected areas, the protection of endangered species and the implementation of sustainable harvesting in Canada’s Boreal Forest.

Indonesia experiences the second highest rate of deforestation among tropical countries, with the island of Sumatra standing out due to the intensive forest clearing that has resulted in the conversion of 70% of the island’s forested area (FAO Forest Assessment 2010; Margono, B.A. et al. 2012). Canopy and our NCO partners are focused on forwarding lasting protection of the Leuser Ecosystem. Asia Pulp & Paper (APP) and Asia Pacific Resources International Ltd. (APRIL) have been identified as the primary cause and have been criticized by local and international groups for being implicated in deforesting important carbon rich peatlands, destroying the habitat for critically endangered species and traditional lands of indigenous communities, corruption, and human rights abuses (Eyes on the Forest. 2011. http://www.eyesontheforest.or.id/). APP and APRIL have both put in place forest policies, tracking implementation closely will be key to understanding if either company offers lasting solutions for Indonesia’s rainforests. Cellulosic fibre producer Sateri, is part of the Royal Golden Eagle Group along with APRIL.

Plantations are areas that have been “established by planting or sowing using either alien or native species, often with few species, regular spacing and even ages, and which lack most of the principal characteristics and key elements of natural forests”. Plantations prior to 1994 are often FSC certified. Source FSC: http://www.fsc.org/download.plantations.441.htm

Legal forest management is management that complies with all applicable international, national, and local laws, including environmental, forestry, and civil rights laws and treaties.

Agricultural residues are residues/by-products left over from food production or other processes and using them maximizes the lifecycle of the fiber. Depending on how they are harvested, fibers may include flax, bagasse, and hemp.

A definition of Next Generation Fibre sources can be found at: https://canopyplanet.org/campaigns/canopystyle/canopystyle-next-generation-vision-for-viscose/

https://hub.textileexchange.org/learning-center/mmcellulosics