



# SUSTAINABLE DENIM PRINCIPLES

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What's changed?	New policy

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## SCOPE

Refers to the sustainable attributes and initiatives that M&S are applying in the manufacturing of denim garments, to reduce the impact on the environment through the use of best available technology. All denim garments produced for M&S are required to be produced in compliance with these principles.

## BACKGROUND

M&S recognises that denim manufacturing and garment washing has potential for improved resource efficiency and reduced environmental impact. There is a lot of focus on the denim industry, as it is considered one of the dirtiest parts of the fashion industry.

The process for dyeing denim fabrics uses high levels of water, energy and chemicals. Developments in chemistry mean that there are improved dyestuffs on the market which drastically reduce dyeing time, water consumption and chemical use. M&S suppliers should gradually convert all indigo dyeing over to these new methods.

Later in the manufacturing process, all denim garments go through a washing process which uses high levels of water and involves labour intensive methods to distress garments. Innovative technologies and chemical advances mean that sustainable wash processes are more widely available and can be applied to volume production.

At M&S, we want to communicate our sustainability initiatives to our customers through strong marketing stories and PR, backed by strong evidence. In order to make such claims, the sustainable denim programme is built around a measurement platform developed by Jeanologia called EIM – Environmental Impact Measurement.

Use of the measurement tool offers complete transparency of the wash process steps including chemical and water usage and an opportunity to drive the adoption of more sustainable washing.

## RATONALE AND OBJECTIVES

The rationale and objectives for these principles are:

- To ensure M&S improves the environmental impact of its denim products
- To lay out a set of uniform principles around the development of denim product that will need to be adhered to by all business units consistently
- To measure the environmental impact score of every garment wash process – there is no improvement without measurement.
- To ensure due diligence is undertaken with regards to the verification of fabric dyeing method, garment wash processes and environmental impact scores.
- To ensure M&S can substantiate any marketing claims for products marketed as sustainable denim

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## M&S MANDATORY PRINCIPLES FOR SOURCING SUSTAINABLE DENIM PRODUCTS

The guiding principles of the Sustainable Denim programme are that all denim products should be developed to:

- Minimise the use of water per piece
- Use Kinder / Less chemicals
- Utilise new technology in fabric dyeing and garment washing

### Fabric – Fibre selection

Cotton is the main fibre used in denim fabrics. This fibre must be sourced according to the [M&S Responsible Cotton Sourcing Policy](#).

All other fibres eg. Polyester, Viscose, should be sourced according to the appropriate fibre sourcing policy where applicable.

[M&S Responsible MMCF Sourcing policy](#)

### Fabric – Dyeing and finishing

All wet processing facilities producing fabric for M&S must declare compliance to the M&S Environmental & Chemical Policy by completing an ECP Self Audit, renewed every 12 months. They must provide a valid ECP Registration number when completing the fabric technical submission.

All chemicals used in the dyeing and finishing of raw materials for M&S must comply with the Manufacturing Restricted Substance list and relevant standards including UK & EU REACH

Denim fabrics are yarn dyed using synthetic indigo dyes. M&S are committed to phasing out the use of powdered Indigo dyes, converting to Pre-reduced Indigo which is a cleaner and more resource efficient dyestuff. The following chemical manufacturers produce Pre-Reduced Indigo dyes which use less water, less hydrosulphite and less energy in the dyeing process:

- Archroma
- Dystar
- CoBlu

These suppliers are provided as examples. As this dye method becomes standard within the denim manufacturing industry, more chemical suppliers will produce these dyes.

### Garment Washing Processing

After sewing, all denim garments are washed at an industrial laundry to give them a softer handle, adjust the colour level and apply fashion effects.

All garment wash processes should be developed following sustainable principles.

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## 1. Minimise the use of water per piece

- Use garment washing machines using lower liquor ratios (water per kg garments). Old machines use liquor ratios of around 12l:1kg. New models, or those with retro fitted water saving devices, can use between 4 and 8 litres of water per kg of garments.
- Measure and record water usage, including all wash and rinse cycles.

## 2. Use less and/or kinder chemicals

- Reduce net usage of chemicals by reducing water use – chemicals are applied in grammes per litre of water.
- Ensure wash chemicals are compliant to the M&S/ZDHC Manufacturing Restricted Substance list.
- Encourage the use of certified, lower impact chemicals such as enzymes, bleach, softeners and other auxiliaries. Such chemicals have a lower hazard profile.
- Eliminate the use of Potassium Permanganate (PP) Spray – replacing with certified, lower impact chemical sprays, free of any heavy metals. Alternatively, laser can be used to achieve some effects.
- Champion new technologies in place of conventional processes – Laser, Ozone, E-flow

## 3. Utilise new technology

The use of new technology has positive impacts on water and chemical use as well as reducing worker impact.

- Encourage the adoption of hands-free laser processes in place of hand sanding, brushing and spraying
- Trial waterless technologies, such as Ozone bleaching and E-flow finishing with a view to scaling to volume production in the future.

## ENVIRONMENTAL IMPACT MEASUREMENT by Jeanologia

M&S subscribes to Jeanologia's Environmental Impact Measurement (EIM) software – a standardised industry-wide system used to compare environmental impact data at washing level. This software measures impacts across four indicators: Water, Energy, Chemicals, Worker Impact.

All laundries supplying to M&S are required to subscribe to EIM and undergo training and accreditation by Jeanologia. EIM scores should be submitted by the laundry at development and bulk stage.

To establish an EIM score, the laundry enters all of the wash process steps in the system. This includes details of each dry and wet process including water use, temperature, time and chemical dosing. Using an algorithm, the EIM score takes into account how the product is

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performing on the 4 indicators. A lower score indicates a lower environmental impact. A score of 33 or less is ranked “Green” or low impact.

Wash processes for all M&S denim orders at stroke/colour level are required to be uploaded to EIM and the detailed recipes must be shared with M&S (in the EIM system). The data produced via the EIM platform is downloaded and used to support our marketing claims.

## ROLES AND RESPONSIBILITIES

- UK & SO Technologists – review EIM scores and wash process information at development and bulk stage, ensuring they comply with Sustainable Denim Principles.
- SO Technologists – verify EIM data following the agreed process.
- Supplier – enter washing process for all denim styles into EIM and share with M&S.
- Sustainability team – compile seasonal denim orders and wash data to establish program scores.

## VERIFICATION AND DUE DILIGENCE

To ensure that the data collected for the Sustainable Denim programme is accurate and representative, Sourcing Office Technologists should follow the steps laid out in the **EIM Verification Manual** which are summarised here. This verification and due diligence process aims to continuously improve the quality of data collected and correct any patterns of error.

- Step 1 - Bulk v.s. Base Comparison – All styles - check bulk recipe and EIM score against that agreed at order confirmation
- Step 2 - Desktop Verification – Random styles - ensure recipes are entered correctly against laundry’s internal production paperwork
- Step 3 – On Site Laundry Verification – one visit per season – ensure laundry is entering recipes correctly against actual production.

Verification charts are completed and submitted to the Sustainability Team.

All of the data collected is collated and stored centrally. It is used to create the EIM dashboard on power BI where key data can be accessed and filtered by BU and season.

## PLAN A ATTRIBUTION

Plan A attributes are used to drive product sustainability and encourage the uptake of preferred raw materials, improved processes and best available manufacturing techniques.

For Denim styles there are three relevant Plan A attributes that can be assigned

1. Green EIM Score
2. Pre-Reduced Indigo dyeing
3. Plan A Raw Materials selection

Allocating Plan A attributes will enable sustainable features to be called out in the garment details on M&S.com.

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For more information, refer to the C&H Plan A Attribute Guide.

## MARKETING & CLAIMS

Before any product claim related to Sustainable Denim is made, it is imperative the mandatory principles for sourcing outlined above have been followed.

Claims regarding water and chemical savings and EIM scores should be based on the data presented in the EIM dashboard.

### 100% Sustainable Cotton

For claims relating to 100% sustainable cotton, refer to the Marketing & Claims section of the M&S Responsible Sourcing of Cotton Policy:

<https://corporate.marksandspencer.com/documents/plan-a-our-approach/mns-cotton-sourcing-policy.pdf>

### Jeanologia

For claims based on the use of Jeanologia's Environmental Impact Measurement – more information on Jeanologia can be found on the below link:

<https://www.jeanologia.com/wp-content/uploads/2019/08/PRESS-DOSSIER-ENG-2019.pdf>

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