

ALLIANCE FOR RESPONSIBLE DENIM

Wash Recipe Questionnaire Instructions



How to fill in this questionnaire

Introduction and background

The purpose of the Alliance for Responsible Denim is to produce denim in a sustainable way and each member aims to collaborate together to achieve the sustainability goals. In accordance with the brands, we set up this questionnaire to gain deeper insights into denim finishing processes. By gathering all possible data from you and other denim suppliers, we aim consequently to guide suppliers and brands towards a more sustainable production. We are not ranking suppliers according to the results or using the questionnaire as a decision-making tool to shift production elsewhere. The information gathered from the questionnaire will remain confidential.

Focus of the questionnaire

The questionnaire focuses on the brand's Never-Out-of-Stock (NOS) styles sequences in the finishing process. You are kindly requested to provide information related to the specific NOS style/s and its finishing sequences.

How to fill in this questionnaire

The questionnaire is formatted in an Excel file which you can request via email (info@denimalliance.org). The Excel file comprises three main parts. Please fill in and complete all questions in the most diligent way possible.

1. Facilities General Information sheet: general information related to the suppliers' features and factories
2. Example of filled questionnaire: the suppliers have the opportunity to look at a filled in questionnaire for the specific NOS style. We ask to fill in the questionnaire following the example.
3. NOS Styles Specific Information sheet: (one for each NOS Style) related to specific questions on different topics.

Please read all questions carefully and provide as detailed information as possible. Some questions could ask for evidence documentation, we kindly ask you to attach the relevant documents when requested to complete the questionnaire.

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FACILITIES GENERAL INFORMATION

Supplier details:

| | |
|---|--|
| Factory Name | |
| City | |
| Country | |
| Name of person completing the questionnaire | |
| Job Title | |
| Contact Info (e-mail/phone) | |

General information related to the facility:

| | |
|--|--|
| Do you have access to / use an Effluent Treatment Plant (ETP)? | |
| What % of your water will be re-used? | |
| Do you generate your own energy through solar or other sustainable solutions? | |
| What % of your energy will generated in a sustainable way? | |
| Do you track and calculate the greenhouse gas emissions? (If YES, please provide evidence.) | |
| Is your discharge data disclosed? e.g. IPE platform | |

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FACILITIES GENERAL INFORMATION

Information related to the availability of machines:

How many production washing machines do you have?

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How many production dryers do you have?

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| |
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Which sustainable laundry machinery do you have?

 Laser Machine (e.g. Tonello, Jeanologia, others)

 Ozone machine (e.g. Tonello, Jeanologia, others)

 E-flow machine (Jeanologia)

 Core machine (Tonello)

 NoStone machine (Tonello)

 Water Brush Machine (Tonello)

 Spray Robot (VAV)

 Other, please specify

 We don't have any sustainability machines

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Is the facility taking part in any of these initiatives?

Greenpeace Detox

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ZDHC

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BEPI

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Higg Index- environmental facility module

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PaCT

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Better Mill Initiative

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Clean by Design (NRDC)

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Jeanologia-EIM

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Green Screen

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Project in collaboration with DyeStar/Huntsman/Stahl or other

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Environmental footprint measurement (please specify)

Any other initiative linked to water, chemicals, energy/emissions (please specify)

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FACILITIES GENERAL INFORMATION

Does the facility have any of the following environmental certifications?

| | |
|---------------|--------------------------|
| Oeko-Tex 100 | <input type="checkbox"/> |
| Oeko-Tex 1000 | <input type="checkbox"/> |
| Oeko-Tex STeP | <input type="checkbox"/> |
| bluesign | <input type="checkbox"/> |
| GOTS | <input type="checkbox"/> |
| GRS | <input type="checkbox"/> |
| EU Ecolabel | <input type="checkbox"/> |
| ISO 14001 | <input type="checkbox"/> |
| ISO 5001 | <input type="checkbox"/> |

Any other certification linked to water, chemicals, energy/emissions (please specify)

Does the facility have any policies in place? *if yes, submit evidence

| | |
|---|--------------------------|
| Do you have a policy on REACH? | <input type="checkbox"/> |
| Do you have a policy on SVHC? | <input type="checkbox"/> |
| Do you have [self] declarations from your chemical suppliers available? | <input type="checkbox"/> |
| Do you use Material Safety Data Sheets? | <input type="checkbox"/> |
| Do you have an inventory of all chemicals used at your facility? | <input type="checkbox"/> |
| Are chemicals automatically measured and dosed? | <input type="checkbox"/> |
| Do you have an MRSL? | <input type="checkbox"/> |

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EXAMPLE OF FILLED QUESTIONNAIRE ON RECEIPT OF NOS STYLE



Factory name: *Factory X*

Brand name: *Brand X*

NOS style name: *Butterfly Skinny*

NOS (internal) style number: *15157*

Quantity of NOS per order (one wash): *20.000*

Total quantity of NOS per year for this brand (one wash): *120.000*

Total production quantity per year for this facility: *3.600.000*

Total average use of Energy per year for this facility (kWh): *2.880.000*

Total average use of Natural Gas per year for this facility (m³): *720.000*

Total average use of Water per year for this facility (ton): *92.400.000*



| SEQUENCE | NAME OF PROCESS | DURATION OF PROCESS IN MINS. | TYPE OF CHEMICAL USED FOR THIS PROCESS | BRAND NAME OF CHEMICAL | NAME OF CHEMICAL SUPPLIER | AMOUNT OF CHEMICAL (GRAMS) | AMOUNT OF STONES USED (KGS) | AMOUNT OF WATER (LITERS) | TEMPERATURE (CELSIUS) | AMOUNT OF PIECES WASHED PER PROCESS | BRAND NAME OF MACHINE | TYPE OF MACHINE |
|----------|-----------------|------------------------------|--|------------------------|---------------------------|----------------------------|-----------------------------|--------------------------|-----------------------|-------------------------------------|-----------------------|-----------------|
| 1 | Laser Blasting | 0,5 | | | | | | | | | Jeanologia | FLEXI HS3D |
| 2 | Rinse Wash | 5 | Dispersant | TMS Max | Royal Chemical | 300 | | 300 | 45 | 150 | Tolkar | 3815 |
| | | | Wetting Agent | LAVA VET MDF1496 | DYSTAR | 300 | | | | | | |
| | | | CREASE PREVENTING | SERA LUBE M-CF | DYSTAR | 300 | | | | | | |
| 3 | STONE WASH | 10 | STONE ENZYME | ROGLY COLD | DYSTAR | 300 | 200 | 300 | 40 | 150 | TOLKAR | 3815 |
| | | | DISPERSANT | TMS MAX | ROYAL CHEMICAL | 400 | | | | | | |
| 4 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 5 | STONE WASH | 20 | DISPERSANT | TMS MAX | ROYAL CHEMICAL | 400 | 100 | 300 | 40 | 150 | TOLKAR | 3815 |
| 6 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 7 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 8 | BLEACH | 6 | SODIUM HYPOCHLO-RITE (NaOCl) | | DYSTAR | 2000 | | 500 | 45 | 150 | TOLKAR | 3815 |
| 9 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 10 | NEUTRALISA-TION | 5 | SODIUM METABI-SULFITE (NA2S2O5O) | | DYSTAR | 1500 | | 400 | 45 | 150 | TOLKAR | 3815 |
| 11 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 12 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 13 | EXTRACTING | | | | | | | | | | | |
| 14 | DRYING | 35 | | | | | | | 80 | 120 | TOLKAR | 5070 |
| 15 | SPRAYING | | POTASSIUM PERMANGANATE (KMpO4) | | ROYAL CHEMICAL | 10 | | 1 | | 8 | | |

| SEQUENCE | NAME OF PROCESS | DURATION OF PROCESS IN MINS. | TYPE OF CHEMICAL USED FOR THIS PROCESS | BRAND NAME OF CHEMICAL | NAME OF CHEMICAL SUPPLIER | AMOUNT OF CHEMICAL (GRAMS) | AMOUNT OF STONES USED (KGS) | AMOUNT OF WATER (LITERS) | TEMPERATURE (CELSIUS) | AMOUNT OF PIECES WASHED PER PROCESS | BRAND NAME OF MACHINE | TYPE OF MACHINE |
|----------|-----------------|------------------------------|--|------------------------|---------------------------|----------------------------|-----------------------------|--------------------------|-----------------------|-------------------------------------|-----------------------|-----------------|
| 16 | NEUTRALISATION | 5 | SODIUM METABISULFITE (NA2S2O5) | | DYSTAR | 1500 | | 400 | 45 | 150 | TOLKAR | 3815 |
| 17 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 18 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 19 | BIOPOLISHING | 5 | ANTI-PILLING ENZYME | ROSEL BNT PLUS | ROYAL CHEMICAL | 500 | | | | 150 | TOLKAR | 3815 |
| | | | ACETIC ACID (CH3COOH) | | DYSTAR | 300 | | 400 | 50 | | | |
| 20 | RINSE WASH | 5 | ONLY WATER | | | | | 1000 | | 150 | TOLKAR | 3815 |
| 21 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 22 | LACCASE ENZYME | 3 | LACCASE ENZYME | ROYAL LYKETI | ROYAL CHEMICAL | 400 | | | | 150 | TOLKAR | 3815 |
| | | | ACETIC ACID (CH3COOH) | | DYSTAR | 300 | | 500 | 60 | | | |
| 23 | RINSE WASH | 5 | ONLY WATER | | | | | 1000 | | 150 | TOLKAR | 3815 |
| 24 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 25 | DRAWBACKS | 5 | DISPERSANT | TMS MAX | ROYAL CHEMICAL | 300 | | 400 | | 150 | TOLKAR | 3815 |
| | | | ACETIC ACID (CH3COOH) | | DYSTAR | 300 | | | | | | |
| | | | HYDROGEN PEROXIDE (H2O2) | | DYSTAR | 1000 | | | | | | |
| 26 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 27 | RINSE WASH | 5 | ONLY WATER | | | | | 500 | | 150 | TOLKAR | 3815 |
| 28 | TINTING | 2 | COLORING POWDER | T.BROW BL | DYSTAR | 1 | | 300 | | 150 | TOLKAR | 3815 |
| 29 | SOFTENING | 1 | SOFTENING AGENCY | MSA 96102 | ROYAL CHEMICAL | 1500 | | 300 | | 150 | TOLKAR | 3815 |

| SEQUENCE | NAME OF PROCESS | DURATION OF PROCESS IN MINS. | TYPE OF CHEMICAL USED FOR THIS PROCESS | BRAND NAME OF CHEMICAL | NAME OF CHEMICAL SUPPLIER | AMOUNT OF CHEMICAL (GRAMS) | AMOUNT OF STONES USED (KGS) | AMOUNT OF WATER (LITERS) | TEMPERATURE (CELSIUS) | AMOUNT OF PIECES WASHED PER PROCESS | BRAND NAME OF MACHINE | TYPE OF MACHINE |
|----------|-----------------|------------------------------|--|------------------------|---------------------------|----------------------------|-----------------------------|--------------------------|-----------------------|-------------------------------------|-----------------------|-----------------|
| 30 | EXTRACTING | | | | | | | | | | | |
| 31 | DRYING | 35 | | | | | | | 80 | 120 | TOLKAR | 5070 |
| | | | | | | | TOTAL AMOUNT OF WATER: | 12.101 LITERS | | | | |

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NOS STYLE



Factory name:

Brand name:

NOS style name:

NOS (internal) style number:

Quantity of NOS per order (one wash):

Total quantity of NOS per year for this brand (one wash):

Total production quantity per year for this facility:

Total average use of Energy per year for this facility (kWh):

Total average use of Natural Gas per year for this facility (m³):

Total average use of Water per year for this facility (ton):

INSERT PHOTO OF STYLE

| SEQUENCE | NAME OF PROCESS | DURATION OF PROCESS IN MINS. | TYPE OF CHEMICAL USED FOR THIS PROCESS | BRAND NAME OF CHEMICAL | NAME OF CHEMICAL SUPPLIER | AMOUNT OF CHEMICAL (GRAMS) | AMOUNT OF STONES USED (KGS) | AMOUNT OF WATER (LITERS) | TEMPERATURE (CELSIUS) | AMOUNT OF PIECES WASHED PER PROCESS | BRAND NAME OF MACHINE | TYPE OF MACHINE |
|----------|-----------------|------------------------------|--|------------------------|---------------------------|----------------------------|-------------------------------|--------------------------|-----------------------|-------------------------------------|-----------------------|-----------------|
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| | | | | | | | TOTAL AMOUNT OF WATER: | 12.101 LITERS | | | | |