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Decreases environmental burden of dyeing process

WS™

What is WS™ yarn?

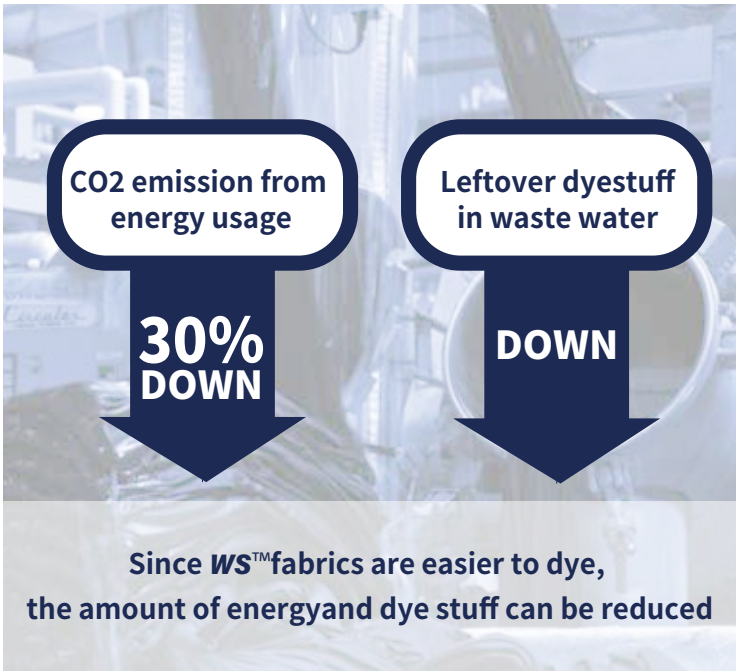
A rapid-dye yarn which was developed through change in physical reaction of the yarn making process; the time it takes for dyeing fabrics can be greatly reduced
※Can be applied to various textiles for fashion, uniform, interior, etc

Improvement in dyeing efficiency
50% UP

Dyes fast
Reduces amount of dye stuff by 20%

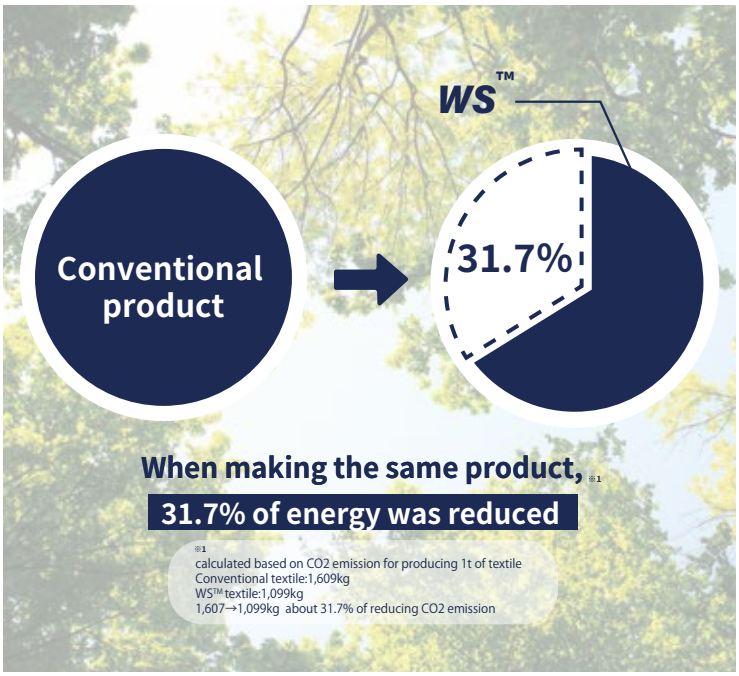
Dyes in low temperature
Reduces energy by 30%

WS™ Positive results towards the environment



Since WS™fabrics are easier to dye, the amount of energyand dye stuff can be reduced

Effect of CO2 reduction WS™ products



When making the same product,※1
31.7% of energy was reduced

※1
calculated based on CO2 emission for producing 1t of textile
Conventional textile:1,609kg
WS™textile:1,099kg
1,607→1,099kg about 31.7% of reducing CO2 emission

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大大减少染色工程对环境的负荷

WS™

什么是 WS™ ？

通过改变制纱过程中的物理作用而开发出来的 "速染纱
加工过程中，能够大大减少染色时间
※可以展开在服装、制服、内饰和材料等各种广泛用途

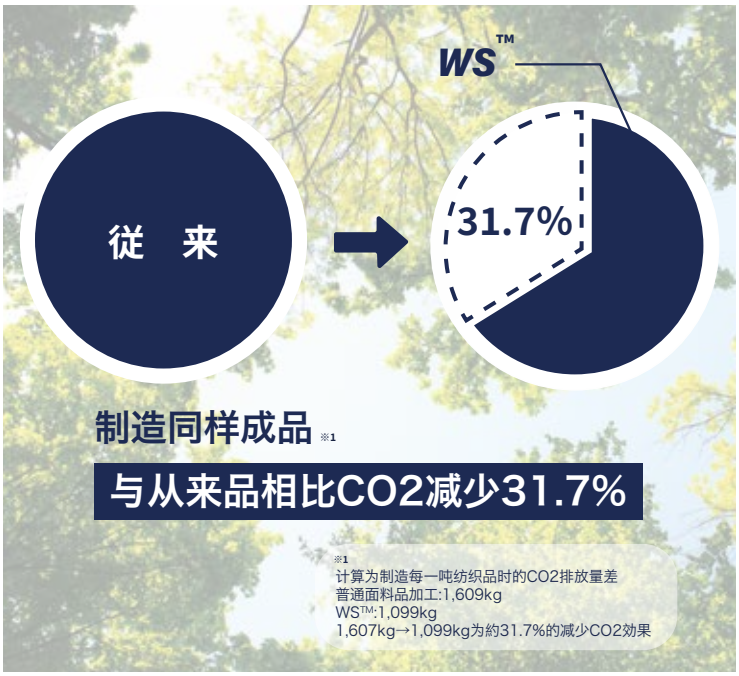
染色效率
50% UP

快速染色
染色用量
20%DOWN

低温染色
能源用量
30%DOWN

WS™ 纱线的减少环境负荷的效果

WS™ 的第三方机构的减少CO2证书



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Date of issue: June 30, 2021
Issue No. 1811004149

Dyeing Process CO2 Emissions Reduction Third Party Confirmation

To: Komatsu Matere Co., Ltd.

1. Confirmation Subject

The Japan Quality Assurance Organization (hereafter "JQA") has provided an independent confirmation on the "Calculation Report for CO2 Emissions Reduction when using WS Yarn in the Dyeing Process (Created June 18, 2021, Report No.: CR-DP-20210618)" (hereafter the "Calculation Report"), prepared by Komatsu Matere Co., Ltd. (hereafter "the Company"). The content of our confirmation was to express our conclusion, based on our confirmation procedures, on whether the Calculation Report was correctly measured and calculate, in accordance with the "Dyeing Process CO2 Emissions Verification Rules" (hereafter the "Calculation Rules") created by the Company. In this instance, confirmation was implemented for two product types, a dye-processed textile comprised of polyester yarn developed by the company, called WS yarn, and normal polyester yarn (each with a processed length of approximately 1000m).

The objectives of this work were to undertake an objective assessment of the CO2 emissions reduction indicated in the "Calculation Report", and to further heighten the credibility of said report.

2. Confirmation Overview

JQA implemented the confirmation procedure in compliance with ISO14064-3. The scope of activities for the confirmation subject of this work is CO2 emissions reduction in the dyeing process, with assurance criteria set as "limited assurance criteria", and quantitative materiality was set as 5% of CO2 emissions reduction. The confirmation process began with the confirmation of all relevant processes that include the calculation subject and the product type, along with the "Calculation Rules" created by the Company. This was followed by actual on-site confirmation of each process and substantiating materials related to set values, and then comparison of data used in calculations against said substantiating materials and Calculation Rules.

3. Confirmation Results

Based on the procedures described above, nothing has come to our attention that has caused us to believe that CO2 emissions reduction of 116.9kg CO2 and CO2 reduction rate of 31.7% indicated in the Calculation Report, is not materially correct, or has not been prepared in accordance with the "Calculation Rules".

4. Considerations

The Company is responsible for calculations made in the "Calculations Report", and JQA's responsibility is to conduct this confirmation work. There are no particular conflicts of interest between the Company and JQA.

Sumio Asada, Board Director
For and on behalf of Japan Quality Assurance Organization
1-25, Kandasudacho, Chiyoda-ku, Tokyo, Japan
June 30, 2021