

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

CO2 emission from
energy usage

**30%
DOWN**

Leftover dyestuff
in waste water

DOWN

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

Effect of CO2 reduction **WS™** products

Conventional
product



WS™

31.7%

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



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

