



HUNTSMAN

Enriching lives through innovation



AVITERA[®] SE

A Sustainable Step Change
in the Dyeing of Cotton



Sustainability
Innovation
Collaboration

AVITERA® SE DYES

Mitigating the Challenges

The first para-chloro-aniline (PCA) free* reactive dye range with unique & comprehensive value proposition

INCREASED BRAND EQUITY

Economic

- Competitive Total Cost
 - Similar to current technology
 - High productivity (25% or more)
 - Fixed cost savings
 - Reduced effluent treatment costs
- Right First Time
- Highest level of light & wet fastness
- Full shade gamut coverage including brilliant shades and black

Customers

- Environment Benefits
 - Water and energy savings (50% or more)
 - Lower salt usage (20%)
- Production Benefits
 - Productivity improvement without additional investments
 - Higher fixation of dyes
 - Retained cotton quality
- Reputation
 - Positive image and increased brand equity for business sustainability

Environmental

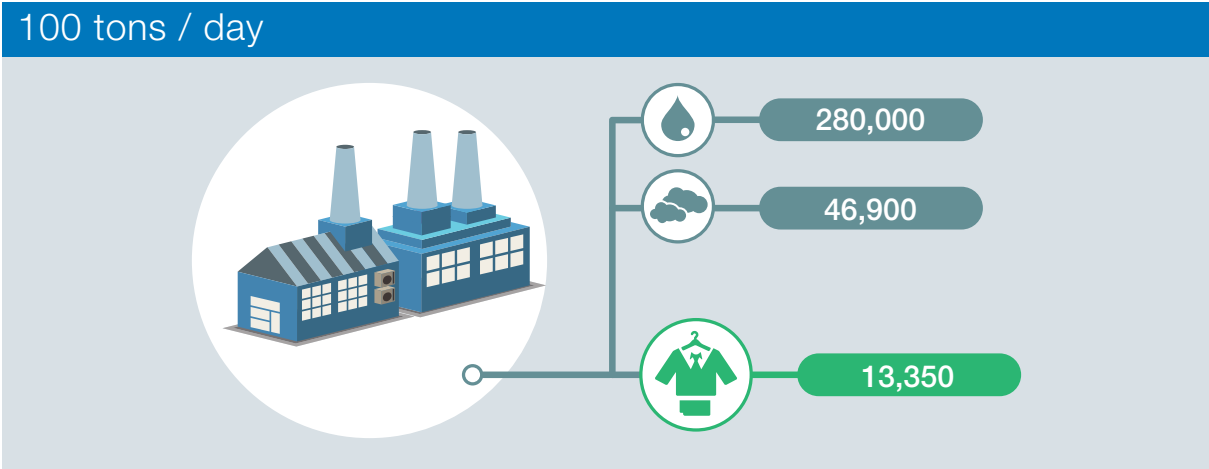
- Compliant with legislation on restricted substances
- Fabrics dyed with AVITERA® are free* from restricted arylamines, including para-chloro-aniline (PCA)
- Reduced CO₂ emission (50% or less)



* Current detection limit 5ppm

Economic Sustainability

The below image shows the indicative ANNUAL savings and additional productivity for a plant when production switches to AVITERA® SE dyes (assuming a balanced shade gamut of 20% pale, 30% medium, 30% dark, 20% extra dark shades).



Annual water savings (m³)



Annual steam savings (tons)



Annual additional productivity (tons)

A Groundbreaking Technology

AVITERA® SE Dyes: Reducing Water & Energy Consumption

Water, Time and Energy Savings			
Conventional Dyes	<p>Water 60 – 80 l/kg</p>	<p>Steam / CO₂ 6.5 / 2.2 kg</p>	<p>Time 7 h</p>
AVITERA® SE Dyes	<p>Water 18 – 20 l/kg</p>	<p>Steam / CO₂ 1.7 / 0.7 kg</p>	<p>Time 4 h</p>

Headquarters

Huntsman (Singapore) Pte Ltd
Textile Effects Division
152 Beach Road
#29-00 Gateway East
Singapore 189721
Telephone +65 6297 3363
Fax +65 6298 0037
pr@huntsman.com

Europe Region

Huntsman Advanced Materials
(Switzerland) GmbH, Textile Effects
Klybeckstrasse 200
4057 Basel, Switzerland
Telephone +41 61 299 11 11
Fax +41 61 299 11 12
pr@huntsman.com

Americas Region

Huntsman International LLC
Textile Effects
3400 Westinghouse Blvd,
Charlotte, NC 28273, USA
Telephone +1 704-587-5000
Fax +1 704-587-5020
pr@huntsman.com

Asia Region

Huntsman Textile Effects
(China) Co. Ltd.
Flying Geese Mountain Industrial Park
Shilou Town, Panyu District, Guangzhou
511447, PR China
Telephone +86 20 3937 7000
Fax +86 20 8484 5222
pr@huntsman.com

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