adidas

PHX-AP0514

Colour Migration – Oven Test

Referenced documents:
adidas Quality Assurance Test Matrix March 2020
PHX-AP0514 Colour Migration – Oven Test – Version 04
ASTM D1776/D1776M:2016
ISO 105-A01:2010

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Partner for Success

Taipei Technical Development Department

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Contents

Objective, Principle and Scope

Objective

To determine the colour migration of polyester fabrics/ polyester blends into white/light print during transportation and storage.

Principle

The sample containing the print is subjected to a set temperature for a prolonged period of time.
The degree of staining to the print is assessed with the grey scales.

Scope

Only for white/light/pale prints applied on dark polyester fabric and fabric in blend with polyester.
Note: Refer to ISO 105-A01 color depth standard, ≤1/12 is light color, >1/12 is dark color.

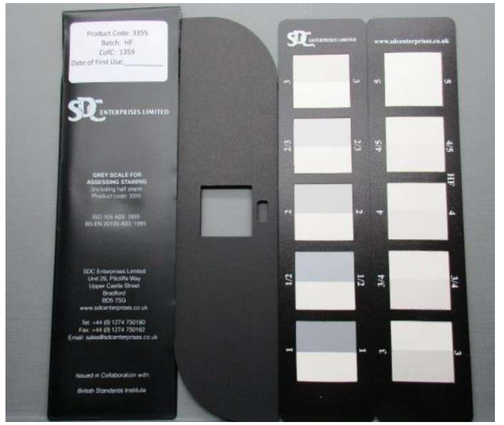
Hardware / Equipment

Fan assisted oven
with a constant temperature of 70˚C (±2˚C)

Colour assessment cabinet
According to ISO 105-A01: 2010

Standard Depths
According to ISO 105-A01: 2010

Grey scale for assessing change in colour
According to ISO 105-A02



Grey scale for assessing staining
According to ISO 105-A03

Sample

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Selection

Component (excluding allover prints/sublimation prints)

o The application of component can be fixed in ready-made garments by heating/bonding/pressing/sewing.

o The print must be applied using the same parameters as for bulk production.

o Create **two** component specimens from the same batch, size and color. One component specimen must be retained for original comparison purpose, one for the actual test.

Note: Refer to ISO 105-A01 color depth standard, ≤1/12 is light color, >1/12 is dark color.

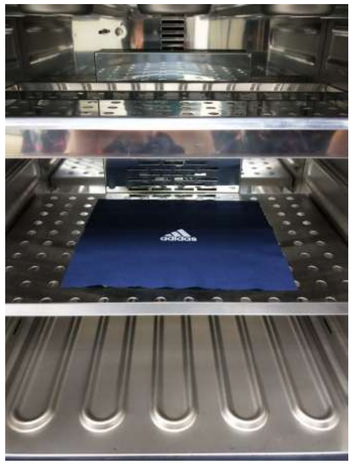
X 2 one for comparison
one for oven

Dark color >1/12

Light color ≤1/12

Procedure

1. Pre-heat the oven to **70˚ ± 2˚C**.
2. Place the sample flat on a clean shelf in the preheated oven with the motive print side up.
3. Leave the sample for **48 hours at 70˚ ± 2˚C** in the oven.
4. Remove the sample after 48 hours.
5. Before assessment, condition the test specimen for **at least 4 hours under 21˚C ± 2˚C and 65 % ± 5% RH** according to ASTM D1776/ASTM D1776M.

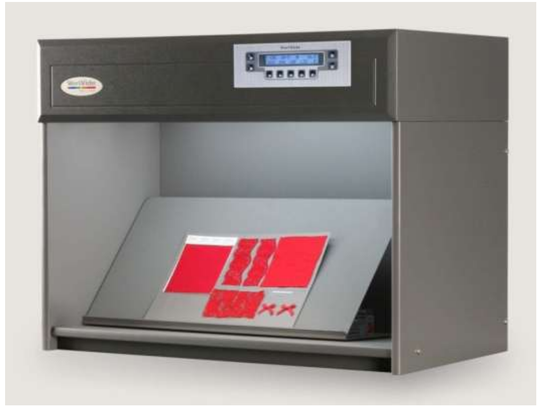


Data collection, Evaluation and Reporting

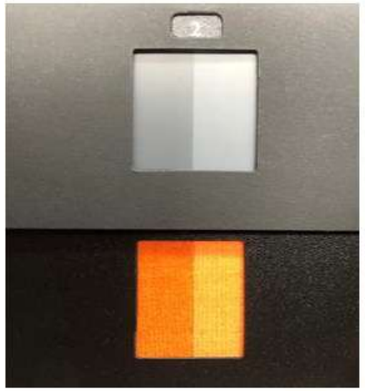
Evaluation

o Compare the treated motive print sample against the untreated motive print sample in a viewing cabinet under light source D65.
  Evaluate any colour staining and/or colour change of the motive print using the grey scale according to ISO 105-A01.

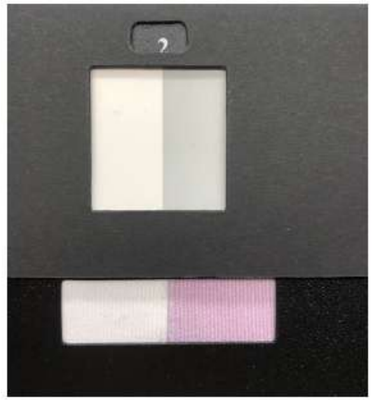
o Refer to the Quality Assurance Test Matrix for grading requirements.



Colour change



Staining



Grade	1	1-2	2	2-3	3	3-4	4	4-5	5
Colour change /Staining	Obviously ←								→ Not obviously

Data collection and reporting

o Colour staining and colour change of the worst evaluated value is required for the aTP-system.

Requirements

adidas Quality Assurance Test Matrix March 2020

adidas_Quality Assurance Test Matrix_ Minimum Requirements*

REQUIRED PHYSICAL TESTS								Fashion/Casual	Hybrid/Performance
Test Method ID	Fabric Tech. K: Knit W: Woven	Composition N: Natural S: Synthetic	@ Supplier T1/T2**	Model/ Article level***	Test Norm accroding to	Test Standard Name	Remark	Minimum Requirements Underlined requirements are mandatory on material level!	Minimum Requirements Underlined requirements are mandatory on material level!
PHX-AP0514	KW	NS	T2 + T1	A	Adidas Method	Colour Migration - Oven Test	only for white/light/pale prints applied on dark polyester fabric and fabric in blend with polyester	staining ≥ 4-5 color change ≥ 4-5	staining ≥ 4-5 color change ≥ 4-5