



Dear Sir,

It is my pleasure to introduce the test items to you,

For textile color fastness property, there are many test items as under

- **Color fastness to Perspiration**, this tester is YG631M \$ Y902, I sent the brochure to you yesterday.
- **Color fastness to light**, usually use Xenon meter to perform this test.
- **Color fastness to rubbing**, use Crock meter to perform this test
- **Color fastness to washing**, use SW-12M to perform this test

After studying on your email, we think you need perform a test for color fastness to washing, so we introduce its principle and test procedure of assessment of color fastness to washing (as per AATCC 61: Colorfastness to Laundering, Home and Commercial: Accelerated).

Test Principle

The test specimen is stitched with one or two pieces of test fabrics, then put into washing liquid. Rotated under a certain temperature for a certain time, the combination of specimen and test fabrics is wash with distilled water and then dried. Assess the color change of specimen and the staining of test fabrics with AATCC or ISO gray scale.

Procedure

Perform a test color fastness to washing according to AATCC 61 standards with our machine SW-12M as follows:

1. Specimens preparation

The sizes of specimens required for the various tests are as follows:



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50×100mm for Test No.1A;

50×100mm for Test No.2A, 3A, 4A, 5A.

Cut 5 specimens according to the sizes above.

2. Stitch test fabrics on the test specimens.

How to select test fabrics and the size of test fabrics please consult the details of related standard.

So we can see that the test specimen is not alone because test standards such as AATCC 61 prescribe that it is washed together with test fabrics. There are various types of test fabrics which are stitched on specimens. Different standard provides different test fabrics, e.g. AATCC 61 Multifiber test fabrics No.1 and FB (8mm bands) contains bands of acetate, cotton, nylon, silk, viscose rayon and wool, Multifiber test fabrics No.10 and FA (8mm bands) and No.10A and FAA (15mm bands) contain bands of acetate, cotton, nylon, polyester, acrylic and wool.

3. Pot the test combination.

Put the test combination of test specimen and test fabrics in the canisters. Test one combination in each canister.

AATCC 61 prescribes two types of canisters: Stainless steel lever lock canisters 500mL, 75mm in diameter and 125mm in height for Test No.1A; Stainless steel lever lock canisters 1200mL, 90mm in diameter and 200mm in height for Test No.2A, 3A, 4A, 5A.

Fill wash liquor in the canisters.

Put a certain amount of steel balls in the canisters, 10 in No.1A, 50 in No.2A and No.5A, 100 in No.3A and No.4A.

4. Mount the canisters in the washer.

There is a canister frame in the washer. Insert the canisters in the special slots on the frame and fix them.

5. Fill water into washer.



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6. Start the washer.

Generally, the washer should preheat the canisters at least 2min. And then rotate the canister frame for 45min at the speed of 40 RPM.

7. Stop the machine.

8. Get the specimens out and assess them.

Wash the combinations in a certain way and precondition them after getting them out of the canisters. Cut the test fabrics off the specimens. Assess the color change of the specimen by comparing it with Change in Color Gray Scale and evaluate the staining of the test fabrics by comparing it with Staining Gray Scale.

Above are simple operations to test color fastness to washing, more details refer to related standards e.g. AATCC 61, 132, ISO 105-C06, 105-D01, JIS L0844, L0860.

(To be continued)



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Testing Machine

SW-12W type Color Fastness to Washing Tester is applied to the color fastness test of the washing resistance, dry washing resistance, and shrinkage resistance of cotton, wool, silk, linen, and chemical fiber. It is designed and produced according to both AATCC and ISO standards, so it can do washing color fastness for kitted fabrics composed of any materials including what you mentioned in your last e-mail. Here are the key specifications of SW-12W:

Canister amount and size	12, 500mL, ϕ 75×125mm(both for ISO and AATCC) 6, 1200mL, ϕ 90×200mm(for AATCC)
Rotation speed	40±2r/min
Time range	0~999min
Time error	Less than 5s
Temperature range	0~100℃
Temperature error	Less than 2℃
Heating power	4.5KW (Two groups)
Rotating power	0.18KW (Two suits)
Power source	AC380V, 50Hz
Size and weight	935×690×910mm, 165Kg

I think if the specimen is made from “polyester, olyester/lycra, nylon and nylon/lycra”, as mentioned in your email, we are sure that this machine is suitable for this kind of test.