

TEST REPORT

APPLICANT : HAERAE CO., LTD.
BUYER :

KATRI NO : SFBB20-00000065
RECEIVED DATE : JAN. 13, 2020
ISSUED DATE : JAN. 31, 2020
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APPLICANT'S PROVIDED SAMPLE DESCRIPTION :

ITEM: 40 COTTON POPLIN
SUBMITTED FIBER CONTENT: 100 % COTTON
SUBMITTED CARE INSTRUCTION: MACHINE WASH WARM, NORMAL CYCLE,
ONLY NON-CHLORINE BLEACH IF NEEDED,
TUMBLE DRY LOW, WARM IRON IF NEEDED

| TEST ITEM | TEST RESULT |
|----------------------------------------------------------------------|-------------|
| | #1 |
| FIBER CONTENT (%) : AATCC 20A-2018 | |
| COTTON | 100 |
| <NOTE> MOISTURE REGAIN : 8.00 % COTTON (BASED ON ASTM D 1909 - 2013) | |

- Continues -



Lim, Hun Jin
Director General

Tested by Name : Ryu Si Hyun



Technical Manager : Kim Jung Min



Location of Test : Wangsan-ro 51, Yongdu-dong, Dongdaemun-gu, Seoul, Korea

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| TEST ITEM | TEST RESULT |
|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| | #1 |
| DIMENSIONAL CHANGE TO WASHING (%) : AATCC 135-2018 | |
| WARP | -6.1 |
| WEFT | -5.5 |
| <NOTE> 1. WASHING CONDITION : MACHINE WASH (41 ± 3) °C, NORMAL CYCLE, TUMBLE DRY LOW, 3 CYCLES 2. (+) MEANS EXTENSION (-) MEANS SHRINKAGE | |
| APPEARANCE AFTER WASHING : AATCC 135-2018 | |
| COLOR CHANGE | 4.0 |
| SELF STAINING | 4.5 |
| PILLING | 4.0 |
| OVERALL RATING | SLIGHT COLOR CHANGE AND PILLING WAS FOUND. |
| <NOTE> WASHING CONDITION : MACHINE WASH (41 ± 3) °C, NORMAL CYCLE, TUMBLE DRY LOW, 3 CYCLES | |
| SKEWNESS CHANGE AFTER WASHING (%) : AATCC 179-2019 | |
| AFTER 3 CYCLES | +1.8 |
| <NOTE> WASHING CONDITION : MACHINE WASH (41 ± 3) °C, NORMAL CYCLE, TUMBLE DRY LOW, 3 CYCLES | |
| HAND IRON (GRADE) : IN HOUSE METHOD | |
| WARM IRON | NO CHANGE(SAFE) |
| FABRIC WEIGHT (g/m ²) : ASTM D 3776/D3776M-09a(2017) OPTION C | |
| | 96.4 (2.84 oz/yd ²) |
| YARN NUMBER (Tex) : ASTM D 1059-2017 | |
| WARP | 14.6 (40.5 's) |
| WEFT | 14.3 (41.2 's) |
| THREAD COUNT (Threads/25 mm) : ASTM D 3775-2017 | |
| WARP | 100 |
| WEFT | 70 |
| WIDTH (cm) : ASTM D 3774-2018 OPTION B | |
| | 158.3 (62.3 inch) |

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| TEST ITEM | TEST RESULT |
|--------------------------------------------------------------------|-------------|
| #1 | |
| COLOR FASTNESS TO LAUNDERING (GRADE) : AATCC 61-2013, 2A, 49 °C | |
| SELF STAINING | 4.5 |
| COLOR CHANGE | 4.5 |
| COLOR STAINING - ACETATE | 4.5 |
| COLOR STAINING - COTTON | 4.5 |
| COLOR STAINING - NYLON | 4.5 |
| COLOR STAINING - POLYESTER | 4.5 |
| COLOR STAINING - ACRYLIC | 4.5 |
| COLOR STAINING - WOOL | 4.5 |
| COLOR FASTNESS TO RUBBING (GRADE) : AATCC 8-2016 CROCKMETER METHOD | |
| DRY | 4.0 |
| WET | 2.5 |
| COLOR FASTNESS TO WATER (GRADE) : AATCC 107-2013 | |
| SELF STAINING | 4.5 |
| COLOR CHANGE | 4.5 |
| COLOR STAINING - ACETATE | 4.5 |
| COLOR STAINING - COTTON | 4.5 |
| COLOR STAINING - NYLON | 4.5 |
| COLOR STAINING - POLYESTER | 4.5 |
| COLOR STAINING - ACRYLIC | 4.5 |
| COLOR STAINING - WOOL | 4.5 |
| COLOR FASTNESS TO CHLORINE BLEACH (GRADE) : AATCC SPOT TEST | |
| COLOR CHANGE | 1.0 |
| COLOR FASTNESS TO NON-CHLORINE BLEACH (GRADE) : AATCC SPOT TEST | |
| COLOR CHANGE | 4.5 |

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| TEST ITEM | TEST RESULT |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| #1 | |
| DIMENSIONAL CHANGE TO WASHING (%) : AATCC 135-2018 | |
| WARP | -2.9 |
| WEFT | -2.9 |
| <NOTE> 1. WASHING CONDITION : MACHINE WASH (27 ± 3) °C, GENTLE CYCLE, LINE DRY, 3 CYCLES 2. (+) MEANS EXTENSION (-) MEANS SHRINKAGE | |
| APPEARANCE AFTER WASHING : AATCC 135-2018 | |
| COLOR CHANGE | 4.0 |
| SELF STAINING | 4.5 |
| PILLING | 4.0 |
| OVERALL RATING | SLIGHT COLOR CHANGE AND PILLING WAS FOUND. |
| <NOTE> WASHING CONDITION : MACHINE WASH (27 ± 3) °C, GENTLE CYCLE, LINE DRY, 3 CYCLES | |
| SKEWNESS CHANGE AFTER WASHING (%) : AATCC 179-2019 | |
| AFTER 3 CYCLES | +1.5 |
| <NOTE> WASHING CONDITION : MACHINE WASH (27 ± 3) °C, GENTLE CYCLE, LINE DRY, 3 CYCLES | |
| HAND IRON (GRADE) : IN HOUSE METHOD | |
| WARM IRON | NO CHANGE(SAFE) |
| COLOR FASTNESS TO LAUNDERING (GRADE) : Ref. AATCC 61-2013, 2A, 30 °C | |
| SELF STAINING | 4.5 |
| COLOR CHANGE | 4.5 |
| COLOR STAINING - ACETATE | 4.5 |
| COLOR STAINING - COTTON | 4.5 |
| COLOR STAINING - NYLON | 4.5 |
| COLOR STAINING - POLYESTER | 4.5 |
| COLOR STAINING - ACRYLIC | 4.5 |
| COLOR STAINING - WOOL | 4.5 |

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| TEST ITEM | TEST RESULT |
|-----------|-------------|
|-----------|-------------|

#1

CONCLUSION & RECOMMENDATION :

BASED UPON THE RESULTS, WE RECOMMEND TO READ THE CARE INSTRUCTIONS AS FOLLOWS.

MACHINE WASH COLD
GENTLE CYCLE
ONLY NON-CHLORINE BLEACH IF NEEDED
LINE DRY
WARM IRON IF NEEDED

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IMAGE



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