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# ANKARA FABRIC AND ITS INDUSTRIAL LAUNDRY CONDITIONS IN LAGOS STATE, NIGERIA

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## Abstract
*Ankara fabrics in industrial laundry conditions in Lagos State, Nigeria was a study undertaken to examine testing procedure for Ankara fabrics and care given before and during laundry. The area of study was Papa in Epe town among 30 respondents who are Laundromat owners. The study design was a purposive design. Two objectives, two research questions and two hypotheses guided the research. A questionnaire was the main instrument used for the study containing 27 questions in which respondents were to answer yes or no. The result revealed that all the respondents answered yes appropriate method to be used when laundering Ankara fabrics, 20(66.7%) answered yes they test for quality when Ankara is brought for industrial laundry, 22(73.3%) test the fabric for density by holding it up to the light, 30(100%) test for texture, and 21(70%) test for color fastness. Majority 17(56.7%) do not add salt or vinegar to the first wash of Ankara brought for laundry, majority 18(60%) expose the fabric to sunlight, majority 23(76.7%) iron the fabric inside out, 30(100%) place damp cloth over stubborn wrinkles and creases when ironing, majority 25(83.3%) store Ankara fabric in the drawer or closet, and 30(100%) answered yes that Ankara fabric maintains its quality when appropriately laundered. In conclusion, Ankara fabric will maintain its sheen, shape and texture if properly tested and cared for during industrial laundry. It is recommended that simple tests be performed for density, handle and touch, and that Ankara fabric be properly stored to preserve its vibrant colour.*
***Keywords: Ankara, Conditions, Fabric, Industrial and Laundry***

## Introduction
Ankara fabric also referred to as African prints, Wax prints, Dutch Wax, Kitenge and Shweshwe among other names is one of the most common type of African fabrics throughout the continent, characterized by bold colors and design, It is 100% cotton but polyester and poly cotton versions are also very common. Often made of high quality cotton or cotton blends. They are durable, long lasting with aesthetic appeal, the fabric is important for cultural artifacts, reflecting the history and traditions of West Africa in which Lagos is one. It is a source of pride and identity and plays an important role in cultural celebrations and ceremonies (Adeola, 2025; Falode, Amubode, Adeboye & Ajayi, 2025; Mfonobong, 2023). The vibrant multi-colored fabrics is used for traditional clothing such as boubou, agbada and kaftan. In Modern African fashion, it is used for dresses, skirts, shirts and accessories which has been exported to other parts of the world, used for scatter cushions on sofas or bed, reupholster a chair with bright Ankara fabric and the exuberant pattern instantly cheer up even the most drab of rainy days (African Print, 2026; Mfonobong, 2023; Adeola, 2023; Tino, 2020; Gbadamosi, 2018). As a symbol of African culture and heritage Ankara continues to inspire fashion designers around the world. (Nkite African clothing 2026, Adeola, 2025, Falode, Amubode, Adeboye, & Ajayi, 2025; Abraham & Elizabeth, 2024). Generally Ankara fabric is not well suited for harsh industrial laundry conditions. It requires delicate handling to prevent rapid fading, color

bleeding and degradation of the vibrant finish due to its composition of 100% cotton or cotton polyester with surface-applied wax-resist dyes, (Adeola, 2023; Mfonobong, 2023; Chinelo, 2022; Sarah, Khalid, Julie & Charles, 2022).

Ankara fabric under typical industrial laundry conditions will fade due to bleeding especially in the first few washes. Using harsh detergents and high temperatures will strip the color making it look dull. The wax will be removed due to industrial solvent which breaks down the wax coating leading to a loss of the fabric's signature sheen. Rough washing cycle (High spin) can damage the woven cotton fabric leading to fraying. Since the fabric is 100% cotton, it is prone to shrinkage when exposed to high heat (Mfonobong, 2026; Oluwafemi, 2026; T'trend, 2023; Sarah, Khalid, Julie & Charles, 2021). Incorrect washing methods often results in fabric shrinkage, rough texture, faded colors or even holes. Using water that is too hot or mixing the wrong types of fabrics in a load may seem like minor or mistakes but can damage clothes and textiles over time. Understanding how to wash this fabric properly helps preserve the quality and appearance. This means saving money by avoiding frequent replacement, whether in home laundry or industrial laundry conditions (Mfonobong, 2026; Stoddard road Laundromat, 2025; Adeola, 2023; Chinelo, 2022).

Laundry is a highly routinized form of activities based on a sequence of actions such as sorting, pretreatment, filling machines and washing, drying, ironing and folding of clothes and linens to store away. It can also be referred to the washing, drying and ironing of textiles and clothing scientifically. The process involves the interplay of temperature, mechanical action, Chemistry, which covers detergents, bleaching, and time to remove soil and micro- organisms. It is industrial which can be determined visually, by the professional and non-professional consumers. (Laurence, Senja & Marlyne, 2020; Dirk, Jan & Laura, 2019). The demand for clean clothes has led to the rise of various laundry services, including home, hotels and commercial laundry. Manufacturers are also competing to create different brands of laundry products that can effectively remove stains. These chemical substances in detergent and fabric softeners used in laundry process can spoil Ankara fabrics. It is therefore most reasonable to use the appropriate washing methods for Ankara fabrics to last long (Hui, Tian-ci, Yu-xiang, Wei-bin, Chun-Jing, Li-Mei, Ming-Deng, 2025). Laundry can be done using machine or hand. Machine laundry involves series of steps such as sorting of clothes or textiles, loading of the washer, removal from the washer, drying and storage. Hand washing of textiles may involve washing in a basin, bucket, sinks, public facility or surface water source such as river or reservoir (Sarah, Khalid, Julie, & Charles, 2021)

Industrial laundry refers to large scale, systematic cleaning of textiles such as bed linen, towels, uniforms, cottons, mops, and other reusable fabrics used by institutions. Unlike domestic laundry it uses industrial-grade machines, standardized process and trained man power to handle high volumes, while maintaining hygiene and fabric life (All service global, 2025). In sectors where hygiene consistency and efficiency are non-negotiable, industrial laundry plays a critical role from hospitals and hotels, to corporate offices and industrial facilities. Large scale laundry operations ensure that linens, uniforms and fabrics are cleaned, sanitized and managed professionally. Repeated industrial laundering processes can cause a loss of mechanical strength in textile products such as Ankara (Isabela, 2023). All these will be in the pile for industrial laundry. The first step is to test Ankara fabrics for quality: this is not only to determine quality but also the durability, comfort and wearing experience. Good quality fabric reduces issues such as pilling, deformation or fading. The lifespan of a garment depends on choosing the right fabric from the very start. These are the main indicators: density, handle and color-fastness. (Market prospects, 2025; Helen, 2025; Labelish, 2025; Fabric Mill, 2024). A high-density fabric is tightly woven, wear resistant, less prone to deformation and offering some degree of wind proofing and opacity. This can be tested by holding the fabric up to light to observe its transparency, if less light passes through then there is high density. There is the handle or touch test which is the tactile feel of the fabrics including softness, smoothness, elasticity and drape even texture without roughness, quick recovery after light crumpling. Pinch a small piece of fabric to feel elasticity, rub against the cheek to test smoothness, gently stretch to check extensibility and rebound. Next is the color fastness which is the ability to retain color during washing, rubbing or exposure to sunlight. High

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color fastness shows minimal fading after washing and not bleed onto other garments. Rub the fabric with white cloth or wet tissue to see if color transfers. Rub the fabric color before and after washing, expose to sunlight for several hours and observe any fading. (Mfonobong, 2026; Helen, 2025; Labelish, 2025; Fabric Mill, 2024).

Washing Ankara for the first time needs extra care. First soak it in cold water for a short time, add salt and a little white vinegar to help lock in the dye. It helps treat stains as soon as they occur with mild soap and water solution, dabbing gently with a soft cloth. Pre-test stains with a mixture of water and laundry soap to gently scrub the stain. Avoid bleach to prevent fabric from fading. Hand wash with bar or toilet soap in cold water to prevent shrinkage or machine wash with cold water using gently cycle by placing fabric in laundry bag this prevent color fading and fabric shrinkage. Check care labels for specific care instructions. After washing, hang to dry, do not expose to sunlight or use dryer as the high heat can cause the fabric to shrink and lose its shape. (Oluwafemi, 2026; Mfonobong, 2026; Chinelo, 2022). Iron at a low temperature to prevent fading by turning the fabric inside out. Place a damp cloth over the area and press if encountered any stubborn wrinkles, or creases and press on top of the cloth gently (Mfonobong, 2026; Sarah, Khalid, Julie & Charles, 2021).

Test for colorfast by dampening a piece of white cloth, lay it on top of the print fabric and iron until both materials become dry and apply cleaning agent to a hidden seam of the garment. Dab the area with a clean cotton cloth, observe what happens. If the color remove itself from the garment onto the cloth with any of this methods, then it implies that the color will bleed, therefore the fabric should not be mixed with other fabrics (Oluwafemi, 2026; Mfonobong, 2026; Adeola, 2025; Falode, Amubode, Adeboye, & Ajayi, 2025). Store properly in a cool dry place to prevent moisture from damaging the fabric after folding. It can be stored in a drawer or closet to preserve their vibrant colors and prevent fabric from damage. Add silica gel packs to prevent moisture. Avoid hanging for too long as it causes stretching. Use fabric softener sparingly, this can coat the fabric and reduce its breathability. Use only a small amount and not with every wash. Check the fabric periodically to ensure it is still in good condition. If there are signs of mildew discoloration, or damage, take the necessary steps to address the issue immediately (Mfonobong, 2026; T'trell, 2025; Falode, Amubode, Adeboye & Ajayi, 2025; Sarah, Khalid, Julie & Charles, 2021).

Figure 1. Illustration of Ankara fabric design adapted from a commercial fabric pattern sourced from Wellborn Fabrics. Illustration created by the authors using digital illustration techniques based on the original fabric design.

Source: Adapted from Wellborn Fabrics (2025), Authentic 2-in-1 Ankara Designs Combo Prints. Available at: https://wellbornfabrics.com.ng/product/authentic-2-in-1-ankara-designs-8-combo-prints/ (Accessed: 13/06/2026).

Figure 2. Illustration showing selected Ankara fabric designs adapted from a photographic image of Ankara textiles. The illustration was digitally created by the authors based on the original image to facilitate visual presentation of Ankara patterns used in contemporary Nigerian fashion.

Source: Adapted from Arise News, Ankara, Nigerian Fabrics Dominate Global Fashion Spotlight. Available at: Arise News Article (Accessed: 13/06/2026).

**Statement of the Problem**

Ankara fabric is widely used in Lagos State, Nigeria, because of its cultural relevance, attractive designs, and versatility in clothing production. Due to frequent use, Ankara garments are often subjected to industrial laundry processes involving detergents, bleaching agents, high temperatures, mechanical agitation, and pressing, which may affect their colour, texture, strength, and overall appearance. Complaints of colour fading, shrinkage, loss of print quality, and reduced fabric durability have raised concerns among consumers, garment producers, and laundry service providers. However, there is limited empirical evidence on the extent to which industrial laundry conditions influence the performance and longevity of Ankara fabrics in Lagos State. This lack of information makes it difficult to establish appropriate laundering practices that can preserve the quality of Ankara fabrics. Therefore, there is a need to investigate the effects of industrial laundry conditions on Ankara fabrics in Lagos

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State, Nigeria, with a view to providing information that will enhance proper fabric care, improve laundry practices, and prolong the lifespan of Ankara garments

**Objectives**

The main objective was Ankara fabric in industrial laundry conditions. Therefore the following objectives were formulated to:

1. To examine simple tests to be undertaken by Laundromat owners in industrial laundry conditions
2. Examine proper laundry care to be given to Ankara fabrics in industrial laundry conditions.

**Research Hypotheses**

1. There is no significant testing procedure given to Ankara fabrics in industrial laundry conditions
2. There is no significant care can be given to Ankara fabrics in industrial laundry conditions

**Methodology**

Descriptive Survey design was adopted for the study to enable respondents go through the questionnaire, to give their personal opinions about the problem being investigated. The area of the study was Papa in Epe, Lagos State. The population of the study consisted of 30 registered Laundromats in Papa. Who were purposively sampled. A structured questionnaire was the main instrument used in the collection of data for the research, in which respondents were to answer yes or no. The questionnaire was divided into two sections, section A and B. Section A was on the bio-data of the respondents, while section B had 27 items, 12, were on testing procedures for Ankara fabric in industrial laundry conditions 15 were on cares given to Ankara fabrics in industrial laundry conditions totaling 27. The questionnaire was given contact and face validity by 2 experts in fabric care. Their constructive corrections where effected and test-retest was used to determine the reliability and consistency of the instrument. The reliability coefficient of 0.70 was obtained at reliability level this shows that the instrument was valid and reliable. The questionnaire was given to the Laundromat owners personally by the researchers through one of their members as a research assistant. All the questionnaires were filled, collected, and analyzed using Chi-square and Friedman's test. The results are presented below.

**Results**

**Hypothesis 1**: There is no significant testing procedure given to Ankara fabrics in industrial laundry conditions

**Table 1: Testing procedures for Ankara fabrics in industrial laundry conditions**

| S/N | Statement (n=30) | Yes (%) | No (%) | Mean Rank | $\chi^2$ (p-value) |
|---|---|---|---|---|---|
| 1 | I am into industrial laundry | 20(66.7) | 10(33.3) | 7.72 | 61.059* |
| 2 | I do launder Ankara fabric | 28(93.3) | 2(6.7) | 6.12 | (<0.001) |
| 3 | I am aware some Ankara fabrics are 100% cotton | 30(100.0) | 0(0.0) | 5.72 | |
| 4 | Some Ankara are mixture with other fiber | 30(100.0) | 0(0.0) | 5.72 | |
| 5 | I am aware Ankara fabrics are not suited to hash laundry | 28(93.3) | 2(6.7) | 6.12 | |
| 6 | It is appropriate to use the best laundry method for the fabrics | 30(100.0) | 0(0.0) | 5.72 | |
| 7 | This is to prevent the fabric from spoiling | 30(100.0) | 0(0.0) | 5.72 | |
| 8 | I test Ankara fabric for quality when they are brought for industrial laundry | 20(66.7) | 10(33.3) | 7.72 | |
| 9 | I do hold the fabric to light to see whether it is transparent | 22(73.3) | 8(26.7) | 7.32 | |
| 10 | I test for texture of the fabric by touching it | 30(100.0) | 0(0.0) | 5.72 | |
| 11 | I also test for color fastness by rubbing it with wet tissues | 21(70.0) | 9(30.0) | 7.52 | |
| 12 | Such Ankara fabric should not be washed with others when | 24(80.0) | 6(20.0) | 6.92 | |

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there are stains on the tissue

* Significant at 1% level

The Chi-square value ($\chi^2$ = 61.059, p<0.001) from the Friedman's test infers that there are significant testing procedures given to Ankara fabrics in industrial laundry conditions (p<0.05). The testing procedures are checking Ankara fabric for quality when they are brought for industrial laundry (66.7%), holding the fabric to light to see whether it is transparent (73.3%), testing for texture of the fabric by touching it (100%), testing for color fastness by rubbing it with wet tissues (70.0), Such Ankara fabric should not be washed with others when there are stains on the tissue (80.0%) and using the best laundry method for the fabrics (100%).

**Hypothesis 2**: There is no significant care can be given to Ankara fabrics in industrial laundry conditions

**Table 2: Cares given to Ankara fabrics in industrial laundry conditions**

| S/N | Statement (n=30) | Yes (%) | No (%) | Mean Rank | $\chi^2$ (p-value) |
|---|---|---|---|---|---|
| 1 | I add salt or vinegar when washing Ankara for the first time | 13(43.3) | 17(56.7) | 8.78 | 152.098* (<0.001) |
| 2 | I use fabric softener when laundry Ankara fabric | 4(13.3) | 26(86.7) | 11.03 | |
| 3 | I do pretest stains with a mixture of water and laundry soap | 18(60.0) | 12(40.0) | 7.53 | |
| 4 | For quick action I use bleach | 5(16.7) | 25(83.3) | 10.78 | |
| 5 | I place the Ankara fabric in laundry bag and then use gentle circle | 15(50.0) | 15(50.0) | 8.28 | |
| 6 | I also check for care labels before laundry services | 12(40.0) | 18(60.0) | 9.03 | |
| 7 | This is to allow appropriate laundry care for the fabric | 27(90.0) | 3(10.0) | 5.28 | |
| 8 | I do expose Ankara fabric to sunlight after washing | 13(43.3) | 17(56.7) | 8.78 | |
| 9 | Exposing them to sunlight maintains the quality of the fabrics | 12(40.0) | 18(60.0) | 9.03 | |
| 10 | Ankara fabric should be allowed to hang for a long time | 10(33.3) | 20(66.7) | 9.53 | |
| 11 | I iron Ankara fabric inside out | 23(76.7) | 7(23.3) | 6.28 | |
| 12 | I place damp cloth over the area for stubborn wrinkles and creases when pressing | 30(100.0) | 0(0.0) | 4.53 | |
| 13 | After ironing I store Ankara in the drawer or in the closet | 25(83.3) | 5(16.7) | 5.78 | |
| 14 | I do use silica gel when storing Ankara fabric | 5(16.7) | 25(83.3) | 10.78 | |
| 15 | Ankara fabric maintains it quality when appropriately laundered | 30(100.0) | 0(0,.0) | 4.53 | |

* Significant at 1% level

The Chi-square value ($\chi^2$ = 152.098, p<0.001) from the Friedman's test deduces that there are significant cares given to Ankara fabrics in industrial laundry conditions (p<0.05). The care includes pretesting stains with a mixture of water and laundry soap (60.0%), placing the Ankara fabric in laundry bag and then use gentle circle (50.0%), ironing Ankara fabric inside out (76.7%), placing damp cloth over the area for stubborn wrinkles and creases when pressing (100.0%), storing Ankara in the drawer or in the closet after ironing (83.3%), and appropriate laundering to maintain Ankara fabric quality (100.0%).

Justification for using Friedman's Test

**Discussion of the Findings**

The findings revealed that industrial laundry operators possess considerable knowledge of the characteristics and testing procedures required for the proper handling of Ankara fabrics. Most respondents indicated that they launder Ankara fabrics and acknowledged the importance of understanding fabric composition before laundering. The findings showed that respondents recognized Ankara fabrics as predominantly cotton-based materials,

although some may contain blends with other fibres. This finding is consistent with the observations of Adeola (2025), Falode, Amubode, Adeboye, and Ajayi (2025), and Mfonobong (2025), who noted that Ankara fabrics may be produced from cotton or fibre blends depending on the manufacturer. The study further revealed that respondents were aware that Ankara fabrics require appropriate laundry methods and are not well suited to harsh laundering conditions. The majority agreed that proper care is necessary to prevent damage, fading, shrinkage, and deterioration of fabric quality. This finding supports the views of Adeola (2023), Mfonobong (2023), Chinelo (2023), and Sarah, Khalid, Julie, and Charles (2022), who emphasized that improper laundering practices can adversely affect the durability and appearance of Ankara fabrics. The findings also showed that a substantial proportion of respondents conduct quality assessments before laundering Ankara fabrics. These assessments include testing fabric quality, examining transparency by holding the fabric against light, evaluating texture through touch, and testing colour fastness by rubbing the fabric with wet tissues. Such practices demonstrate a professional approach to fabric care and quality assurance. This finding agrees with the recommendations of Market Prospects (2025), Labelish (2025), Fabric Mill (2025), Helen (2025), and Mfonobong (2026), who identified fabric testing as an essential procedure for determining appropriate laundering methods and preventing damage. Furthermore, respondents acknowledged the importance of colour-fastness testing before laundering. The majority agreed that fabrics that transfer colour during testing should not be washed together with other garments to prevent staining and colour contamination. This finding supports the observations of Oluwafemi (2026), Mfonobong (2026), and Adeola (2025), who recommended preliminary colour-fastness tests as a precautionary measure in textile care and maintenance.

The findings revealed that industrial laundry operators adopt various care practices to maintain the quality and durability of Ankara fabrics during and after laundering. Respondents indicated the use of several precautionary measures, including pre-testing fabrics with water and detergent solutions, washing fabrics under controlled conditions, and employing appropriate ironing and storage techniques. These practices demonstrate awareness of the special care requirements associated with Ankara fabrics. The study further revealed that although some respondents add salt or vinegar during the first wash to reduce colour bleeding, the practice was not universally adopted. Similarly, only a small proportion reported using fabric softeners when laundering Ankara fabrics. These findings are consistent with the recommendations of Oluwafemi (2026), Mfonobong (2026), Chinelo (2022), T'trell (2025), Falode et al. (2025), and Sarah et al. (2021), who suggested that laundering methods should be carefully selected based on fabric characteristics to avoid damage. The findings also showed variations in the extent to which respondents follow recommended fabric care procedures. While some respondents reported placing Ankara fabrics in laundry bags and using gentle wash cycles, a considerable number did not. Likewise, many respondents indicated that they do not routinely check care labels before laundering garments. This finding contrasts with the recommendations of Oluwafemi (2026), Mfonobong (2026), and Chinelo (2022), who emphasized the importance of following manufacturers' care instructions to ensure appropriate fabric treatment. Another important finding was the varying practices regarding drying and storage of Ankara fabrics. Although some respondents avoided direct exposure to sunlight and prolonged hanging of fabrics, others did not adopt these measures consistently. Such inconsistencies may influence fabric appearance, colour retention, and overall durability. Previous studies by Adeola (2025), Chinelo (2022), Sarah et al. (2021), T'trell (2025), and Falode et al. (2025) have emphasized the importance of proper drying and storage conditions in preserving textile quality.

The findings further revealed that most respondents employed recommended ironing practices, including ironing Ankara fabrics inside out and placing a damp cloth over stubborn wrinkles and creases. Proper storage after ironing, particularly in drawers and closets, was also widely practiced. These findings agree with the views of Oluwafemi (2026), Mfonobong (2026), Adeola (2025), Falode et al. (2025), T'trell (2025), and Sarah et al. (2021), who highlighted appropriate ironing and storage as essential components of textile maintenance.

**Conclusion**

Ankara fabric will maintain its sheen, shape and texture if properly tested and cared for by consumers during laundry either home or industry laundry conditions.

**Recommendations**

Based on the findings of this study, the following recommendations are made:

1. Laundromat owners and industrial laundry operators should adopt routine fabric-testing procedures before laundering Ankara fabrics. Such tests should include density assessment, texture evaluation through touch, and colour-fastness testing. These procedures will assist in identifying fabric characteristics and determining appropriate laundering methods, thereby reducing the risk of fabric damage.
2. Laundry operators should ensure that Ankara fabrics are handled using appropriate fabric-care practices during laundering. Proper laundering techniques will help prevent colour fading, shrinkage, wrinkles, creases, and other forms of deterioration, thereby preserving the quality and appearance of the fabric.
3. Laundromat owners and laundry operators should avoid practices that may stretch or distort Ankara fabrics. Fabrics should not be left hanging for extended periods, as this may affect their shape, structure, and overall appearance. Proper folding and storage are therefore recommended.
4. Laundry operators should apply suitable colour-preservation techniques, particularly during the first wash of Ankara fabrics. The addition of small quantities of salt and vinegar, where appropriate, can help minimize colour bleeding, improve colour retention, and maintain the aesthetic quality of the fabric.

**References**

Abraham, V.B & Elizabeth, U.U (2024). *The emergence of locally produced Ankara cloths in contemporary Nigerian culture*. Researchgate. https://www.researchgate.net

Adeola, A.A. (2025), Structural relationship of Ankara and lace fabrics in Nigeria, fashion, style & popular culture, 12(4). doi:https://doi.org/10.1386/fspc_00169_1 intellectdiscover.com

Adeola, A.A (2023). Report on predominant Ankara fabric designs in Osun state of South Western Nigeria: Osogbo as a case study. *Journal of the arts and culture*, New series, (18),

African Print (2026). Ankara fabric Manufacture & Suppliers. Yoto Impex PVT Ltd. www.african print.in

Chinelo, E. (2022). Ankara 101: Caring for your Ankara fabrics.life.guardian.ng, The Guardian Nigeria news

Dirk, P.B., Jan, S., & Laura, P., (2019), Laundry and textile hygiene in health care and beyond. Microbcell. 2019. Vol. 6 (7): 299-306. Doi:10.15698/mic2019.07.682.pmc.ncbi.nim.nih.gov

Fabric,. (2024), How to evaluate the quality of fabric? www.fabricmill.com

Falode, C.G. Amubode, A.A, Adeboye, A.O, & Ajayi, O.L (2025), Quality attitudes of foreign and locally made Ankara fabrics among civil servants in Ekiti state, Nigeria.

Gbadamosi, R. (2018). entrepreneur advocate use of Ankara materials for school. Illorin. info.https://www.illorin.info

Hui, G., Tian-ci, L., Yu-xiang, G., Wei-Bin, Y., Chun-Jin, S., Li-Mei, Q., Ming-deng, S. (2025). Strategies for optimizing resource efficiency in the laundry process. *Water supply*, 25(9): 1292-1309

Isabela, J., (2023). industrial washing conditions as factors that influence the cellulose structure and mechanical strength of bed linens. *Scientific reports* (13): 12214.www.nature.com

Helen, G. N. (2025). Cotton quality tests: A buyer's guide. To staple length, micronaire & strength, Fabric-supplier. https://fabric-supplier.comLabelish (2025), How to spot 100% cotton:? Sure-fire ways to identify quality fabric. labelish.com

Laurence, G., Senja, L., & Marlyne, S. (2020). doing laundry in consumption, corridors, well-being & everyday life. Sustainability: science, practice & policy. Vol. 16 (1), Taylor and Francis online. www.tandfonline.com. https://doi.org/10.1080/15487733.2020.1785095.

Market Prospects (2025). Insights Knowledge, How to judge fabric quality: key evaluation methods for density, handle and color-fastness. www.market.prospects.com

Mfonobong, D (2026). How to care for Ankara fabrics. Blog.Home/Ankara fabric suppliers Ankara. https://www.ankara.com.ng

Mfonobong, D (2023). History of Ankara fabrics. Blog.Ankara. www.ankara.com.ng

Nkitedesigns (2026). *What can Ankara fabric be used for*:? nkitedesigns.com

Oluwafemi, A. (2026). *What's the best way of caring for African fabrics*. Blog.Home/Ankara fabric suppliers. www.ankara.com.ng

Sarah, E.A., Khalid, M.L., Julie, M., Charles, P.G. (2021), Laundry hygiene and odor control - State of the science. *Applied and environmental microbiology*, 87(4). Researchgate. Doi: 10.1128/AEM.03002-20. www.researchgate.net

Tino, M. (2020). *Guide to sewing Ankara fabric*. All about African wax print seamwork. www.seamwork.com

T'trell, P.K. (2025). *How to care for your Ankara fabrics - The complete 2026 guide*. ttrell.com