

Application of Materials for Laundry Room Needs in Residential Houses

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ABSTRACT

In residential needs, the laundry room has an essential role, because washing and drying activities cannot be separated from household chores. The modern interior design concept of a laundry room aims to get a comfortable atmosphere for user needs. The interior atmosphere can be formed through the basic design elements consisting of lines, shapes, fields (color and texture), and light spaces. Interior room elements are formed by several two-dimensional fields, namely floors, walls, ceilings and door and window.

In interior design, a project must be described broadly from the selection of floor, wall and ceiling materials, to cabinet furniture upholstery and other materials used to meet the functional, durability and aesthetic requirements of the room.

These materials are often chosen based on aesthetic quality and price with many choices, and the durability of interior finishing is also a major consideration for interior designers. Floors, walls and ceilings must be durable, i.e. able to withstand wear, pressure, and damage, both structurally and in terms of quality, as well as wooden tables and joints, which must be able to withstand wear and tear tests and time.

INTRODUCTION

In residential needs, the laundry room has an essential role, because washing and drying activities cannot be separated from household chores. Laundry room is an area that is used to put dirty clothes and wash clothes. In many modern places or not too large dwellings, the laundry room generally consists of a washing machine, dryer, cupboard, place for dirty clothes and an iron.

Currently on social media, there are many modern interior design concepts about a laundry room with a comfortable atmosphere for user needs. The interior atmosphere can be formed through the basic design elements consisting of lines, shapes, fields (color and texture), and light spaces. According to Wicaksono and Tisnawati (2014, p.10), this is closely related to creating a comfortable atmosphere for space users. Interior room elements are formed by several two-dimensional areas, namely floors, walls, ceilings and door and window openings. According to Wicaksono and Tisnawati, if one of them does not exist, it cannot be called an interior because the room cannot function and be used properly (Wicaksono, Tisnawati, 2014, pp. 10-12).

In interior design, a project must be described broadly from the selection of floor, wall and ceiling materials, to cabinet furniture upholstery and other materials used to meet the functional, durability and aesthetic requirements of the room.

Although these materials are often chosen based on aesthetic quality and price with many

options, the durability of interior finishing is also a major consideration for interior designers. Floors, walls and ceilings must be durable,

i.e. able to withstand wear, pressure, and damage, both structurally and in terms of quality, as well as wooden tables and joints, which must be able to withstand wear and tear tests and time.

To overcome the solution of these problems, it is necessary to understand the application of the right material in the laundry room project.

METHOD

2.1 Case Study

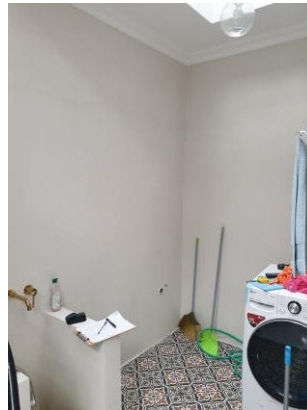


Figure 2. 1. 1 The Existing Photo (Source: Gracia Wijaya, 2022)

The existing photo above is a project that will build a laundry room. Located in Sentul Alaya Housing, Bogor and has an area of 4.06 m².

2.2 Object Study

According to the client's demands, this laundry room will be made with a classic modern theme with shades of white and dark green. As well as the sink and gold-colored clothes hangers.

Before entering the design stage, the client has a design brief that contains the desired concept design, such as a reference to the cabinet to be made, the color chosen, the choice of backsplash material, and the accessories needed in this laundry room.



Figure 2. 2. 1
Reference 1 (Source: Gracia Wijaya, 2022)



Figure 2. 2. 2
Reference 2 (Source: Gracia Wijaya, 2022)



Figure 2. 2. 3
Reference 3 (Source: Gracia Wijaya, 2022)

2.3 Research Method

In making a laundry room, of course, it is necessary to choose the right material to be able to meet the functional, durability and aesthetic needs of the room for the user.

The method in applying this laundry room material uses the design method according to Rosemary Kilmer and Otie Kilmer, whose design process is as shown in the graphic below:

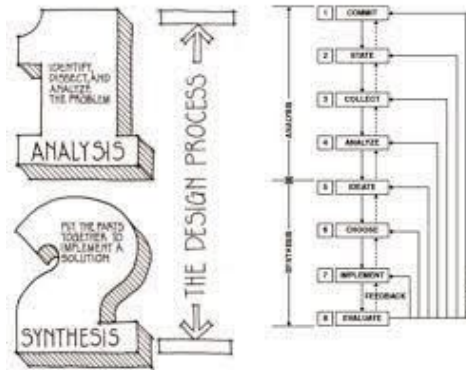


Figure 2. 3. 1 Design Process
Diagram (Source: Rosemary
Kilmer dan W. Otie Kilmer,
2014:178)

1. **Commit (Accept the Problem)** is the initial stage by recognizing the problem is looking for issues or phenomena that occur in the application of materials in the laundry room.
2. **State (Define the Problem)** is the stage of determining the problem and will have a direct impact on the final design solution. The formulation of the problem is made as a key to describe the problem:
 - “What's really the problem?”
 - “What problems must be solved?”
 - “Is this solution the right one to solve the problem?”
 Then the problem formulation is obtained as follows:
 - “How is the application of materials that are able to meet the functional, durability and aesthetic needs of the space for the user?”
 With the following design objectives:
 - “To get the right material so that it can make users comfortable in carrying out activities in that space.”
3. **Collect (Gather the Facts)** is the stage after getting the problem formulation. So at this stage the following parameters are obtained:

Table 2. 3. 1 Appliances Materials Parameters

PARAMETERS
1. Precise and quality materials to make users work easier and more effective.
2. Materials that have the ability to be water resistant, moisture resistant, and scratch resistant.
3. Furniture materials that don't require high maintenance by the user.

Source: Ching, F. D. K., & Binggeli, C. (2018). *Interior design illustrated*. John Wiley & Sons, Inc.

- Implement (Take Action) is the stage when the selected alternative ideas are put into physical form such as sample materials, renderings, and presentations.

1. Material Sample

Before entering the construction drawing stage, it is necessary to have client approval regarding what material to choose for the laundry room furniture.

HYDE
LIVING
MATERIAL APPROVAL LIST

PROJECT NAME : Mrs. Nisa
PROJECT ADDRESS : Central Pagar
PE NAME : Nisa
SIP NAME : Nisa Nisa - Gracia
DESIGN TRAFFIC NAME : Pagar
FINAL DATE SUBMISSION : 2023/04/15 (after approval by client)


NO	CODE	ITEM	IMAGE	DESCRIPTION	QTY	LOCATION	SUPPLIER	REMARKS	APPROVAL
1	P-01	DUOD		TYPE : NP 15 COLOR : EXCELLENTE WHITE SIZE : 1200x2400	1	TOP CABINET	NIPPE 2000		
2	P-02	DUOD		TYPE : NP 155 COLOR : PINK DARK GREEN SIZE : 1200x2400	1	BOTTOM CABINET	NIPPE 2000		
3	L-01	HPL		TYPE : TH 802 AA COLOR : PRIMER WHITE SIZE : 1200x2400	1	INSIDE CABINET	TACO		
4	M-01	STAINLESS STEEL		TYPE : ALUMINIUM COLOR : GOLD SIZE : 1200x2400	1	CABINET LEGS			
5		HANDLE		TYPE : MANGKOK KERANG COLOR : GOLD SIZE : 1200x2400	1	CABINET HANDLE	WOODSTOCK		
6	S-01	SOLID SURFACE		TYPE : PERFORMANTE COLOR : WHITE (DAM) SIZE : 1200x2400	1	BACKPLASH	PERFORMANTE		

Table 2. 3. 2 Material Approval List

Source: Gracia Wijaya, 2022



Figure 2. 3. 2 Materials Sample for Client(Source: Gracia Wijaya, 2022)

The picture above is a sample material that will be proposed to the client for approval and start the process of making working drawings before building.

2. Rendering and Presentation

The material chosen by the client is implemented in the form of a 3D image and presented.

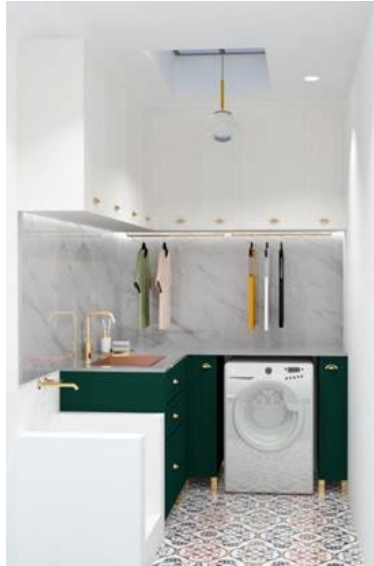


Figure 2. 3. 3 Render Result (Source: Gracia Wijaya, 2022)

The picture above is a laundry room perspective with the application of materials approved by the client.

5. Feedback is a term that many designers use for the systematic evaluation of each step of the design process as a step to compare what was produced with what was there when the project started.

RESULTS AND DISCUSSION

Based on the material requirements that must be applied to the laundry room obtained with the analysis, the applications of these materials include:

1. Floor Material

When choosing a flooring material, some considerations to consider include a good type of floor with a type of floor that is not easy to absorb moisture and water, so that the flooring does not swell, warp, and mold.

The floor must also be able to withstand stubborn and permanent stains because in the laundry room it is very possible for spills of detergent and other materials to occur. In addition, the flooring must also be sturdy, not easily deformed due to body weight, furniture, and other objects, and easy to clean.

Materials that can be selected, namely:

- **Ceramic** is one of the best choices to apply to the laundry room because of its variety and good durability. The floor also has waterproof properties and is not easily affected by chemicals and is resistant to scratches.
- **Tile** is a good alternative choice to be applied to the room. Compared to ceramics, tiles have the advantage of having a very varied and unique pattern.

Tile is a material that is easy to maintain, even though the surface is not as smooth as ceramic so it looks dull and dirty. However, tiles as flooring have sturdy material quality.

- **Natural stones** such as marble, travertine, and limestone are some types of natural stone that can be applied with good results for laundry room flooring. Natural stone has the advantage that it is easy to maintain daily. However, the drawback is that natural stone requires protection so that the surface is not damaged by chemicals and the price tends to be more expensive than other types of flooring.



Figure 3. 1 Ceramic for Laundry Room (Source: <https://sanctuaryhomedecor.com/15-inspiring-laundry-mudroom-design-ideas/>)



Figure 3. 2 Tile for Laundry Room (Source: <https://medium.com/@Fabelio/5-tips-menentukan-lantai-yang-tepat-untuk-rumah-aea56bc314e4>)



Figure 3. 3 Natural Stone for Laundry Room (Source: <https://sanctuaryhomedecor.com/15-inspiring-laundry-mudroom-design-ideas/#/>)

2. Wall Material and Cabinet Surface Coating

When choosing wall materials, it is necessary to pay attention to what furniture will be needed and made in the laundry room area. Based on the case study and the client's desire, namely to make a cabinet for storing cleaning tools, a backsplash is needed like a kitchen project. The main purpose of installing a backsplash is to protect the walls of the laundry room from splashes of water or soap when washing from the sink.

In addition to the backsplash, of course, a coating is needed for the top table cabinet. The application of backsplash wall materials and table top coatings to choose from include:

- **Solid Surface** is a material that has a similar appearance to granite, marble, and wood. Shaped like thick plastic, made from a mixture of modified acrylic resin with certain minerals. Solid Surface has the advantages of various patterns and colors, the material is easy to clean, scratch resistant and light in weight.
- **Ceramic** is a material that can also be used as a backsplash. The various designs and patterns can resemble wood and granite motifs and can be triangular or square according to market tastes.



Figure 3. 4 Solid Surface as Backsplash(Source: firstsenseinteriors.co.uk)

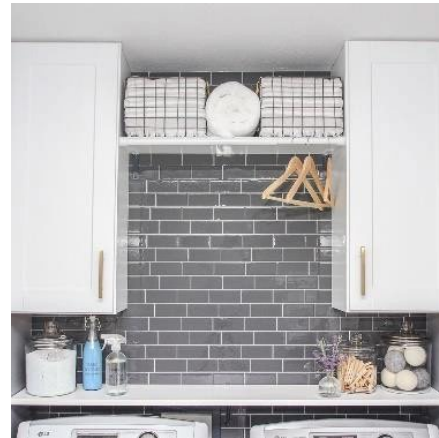


Figure 3. 5 Ceramic as Backsplash(Source: www.homedepot.com)

In addition to the backsplash and countertop, there is also a coating for cabinet furniture. Applications of materials that can be selected are:

- **Duco paint** is a paint that has a high density level, excellent water resistance, and durability to make furniture look more fresh and artistic. This paint is made from nitrocellulose (NC) and has solid colors that can be mixed to form the desired custom colors. In addition to making furniture look unique and trendy, duco paint enhances the quality of furniture made of plywood or plywood because of its water resistance. Duco paint can protect the interior of the furniture from water seepage that may occur in a laundry room project. And the nature of duco paint which is more resistant to stains also makes it easier for users in terms of maintenance.

3. Furniture Leg Material/skirting

When choosing a material for skirting, the client wants the cabinet legs to be hollow so that if there is running water it will not damage the wood or plywood and make it easier for users to clean.

Furniture leg materials that can be applied are:

- Hollow material is a concrete iron in the form of bars with an empty cavity in the middle. Hollow iron is an alternative frame material to replace wood. The nature of hollow iron that is easy to install and sturdy, not eaten by termites, waterproof, not easy to corrode, and has aesthetic value makes hollow iron popular in construction.



Figure 3. 6 Hollow
Material as Skirting
(Source: Gracia Wijaya,
2022)

CONCLUSION

Selection of the right material for the laundry room requires an understanding of how the properties of the selected material will work well and according to the user needs. In addition to meeting the functional needs of users, of course, attention is needed to meet the aesthetic needs of the space in order to achieve a comfortable atmosphere for its users.

The selected materials, such as ceramic for flooring, duco paint for cabinet coating, and solid surface or synthetic marble for backsplash are the right choices and have been approved by the client for this laundry room project.

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