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STUDY ON MATERIALS OF FOOD COURT

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Abstract – Today, Food has become increasingly important as a retailing format in malls and public areas. Shoppers relish the sight of an assortment of food courts just as much as they enjoy browsing through bookstores and shifting through dresses on display rack or pullovers on a shelf. Revamped towards entertainment and renovated for easy and comfort, food court are experiencing resurgence. Food courts are becoming more than just eating houses. In this study I have covered various elements of food court and their material used.

1. INTRODUCTION

A food court is generally a common area within a facility that is contiguous with the counters of multiple food vendors and also provides a common area for self serve dining. It can be either open gathering or enclosed sitting. It can be found in shopping malls, airports, bus stops, some entertaining fairs and public parks too. Food court serves local food and drinks but also international cuisines like Western, Thai, Japanese and Chinese too. Food courts are quick, relatively cheap then restaurants and easy to grab a quick meals or snacks.

1.1 Elements of food court

FOOD ESTABLISHMENT – it's important to you to work with all of the food establishment managers to create a consistent cleaning schedule and establish a standardized set of cleaning technique for food preparation area and serving counter.

DINING OR GATHERING AREA – tracking the dining table is the essential part of food court cleaning. In an effort to prevent bacteria transfer, the management should use an advance system, so the custodians can spray an environmentally safe cleaning solution onto a microfiber towel and wipe each table. In an effort to prevent this bacteria transfer, your team should use a system instead. When using this more advanced system, custodians can spray an environmentally safe cleaning solution onto a microfiber towel and wipe each table.

FLOORS – these are most difficult to clean because it can be challenging to remove food and other soil from ground periodically without disturbing customer. As these areas receives a high volume of traffic, soil can be stepped on and pushed into hard to clean surfaces, throughout the day.

2. MATERIAL USED IN FOOD COURT

Common material used in food courts are wood, plywood, and some other material that facilitate easy to clean up like

linoleum, Formica, stainless steel, glass and tiles. Material used according places-

2.1 WOOD - is a porous and fiber structural material that can be found in the stems and roots of trees and other woody plants. It's an organic material that is strong in tension and durable long. It's an essential part of construction. Oak is an excellent wood for furniture. Maple may be the ideal furniture wood. While there are many different types of maple, almost all are very durable and make for gorgeous furniture.

The Different Types of Wood and Their Uses -

- Softwood The term 'softwood' refers to wood that comes from evergreen or coniferous trees like pine, cheery.
- Hardwood Hardwoods are those that come from deciduous trees like ash, oak, teak, birch walnut and mahogany.

Price starts from - 2500 to 5000 cubic feet.

Uses of wood - wood uses in fuel, construction, flooring, furniture and utensils and also in art and craft.





2.2 PLYWOOD – plywood is a material manufactured from thin layers or plies of wood veneer that are glued together with adjacent layers having their wood grain rotated up to 90 degree to one another. Some better quality plywood product will be design have five plies in step of 45 degree, giving strength in multiple axes.

Types of plywood -

- Softwood plywood
- Hardwood plywood
- Tropical plywood

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- Decorative plywood(Fig 3)
- Flexible plywood(Fig 4)
- Marine plywood









Figure 3

Figure 4

SIZES - 1220x2440mm and the thickness refers to 3.2mm to 7.6mm.

Uses of plywood - partitions and furniture making

2.3 GLASS - glass is non-crystalline, amorphous solid that is most often transparent and has widespread practical, technological and decorative uses in.

Types of glass -

- tempered glass
- toughened glass(Fig 5)
- Plate glass
- Float glass
- Frosted glass (Fig 6)

Uses of glass - utensil, doors and windows, counters and top, table top, partition and display properties.

Price - 3mm glass -180rs per sq.ft,

6mm glass - 240rs per sq.ft,

10mm glass - 420 sq.ft



Figure 5

Figure 6

2.4 STAINLESS STEEL - Stainless steel also known as inox steel with a minimum of 11% chromium content by mass. Steels are most notable for their corrosion resistance which increases with increasing chromium content. It's a durable and affordable metal that is used for a wide variety of purposes. It is strong, making it perfect for construction purposes.

It can be last a long time without being replaced for breaking.

- Stainless steels can be divided into four main types ferritic, martensitic
- precipitation hardening, duplex,
- Austenitic.

The best steel for you depends on the application.

Uses of stainless steel - cookware, cutlery, surgical instrument, table frames, counters, other accessories.

Prices - SS 304 price in India 180rs per kg

Ss 304 price in USA 350rs per kg.



Figure 7

Figure 8



Figure 9

2.5 ALUMINIUM – Aluminum is a silvery white light weight metal. It's a lustrous, malleable and ductile and has high electrical and thermal conductivity. Countless object that simplify as well as increases the quality of our daily life are partly made of aluminum.

For e.g. cars, refrigerator, kitchenware, electric power lines, packaging for food and medicines, computers, furniture and aircrafts.



The most common aluminum used in the general fabrication industry is 3000, 5000 or 6000 series alloys. It's important for engineers and architects to have a strong understanding of different types of aluminum for aluminum welding and fabrication, and its many alloys when requesting a specific type for a project.

Uses of aluminum - it is used in a huge variety including cans, foils, kitchen utensils, window frames, beer kegs etc.

Price - 140rs per kg.





Figure 11



Figure 12

2.6 PVC – Economical, versatile polyvinyl chloride (PVC, or vinyl) is used in a variety of applications in the building and construction, health care, electronics, automobile and other sectors, in products ranging from piping and siding, blood bags and tubing, to wire and cable insulation, windshield system components and more.

Uses of pvc – sliding and windows, crockery, wiring and cables, water pipes, minimalist furniture, packaging.

Disadvantage of pvc -

Temperature- PVC pipes are self-insulating and capable of handling very high-temperature water. However, PVC pipes are not very flame resistant; they are subject to melting at temperatures of only a few hundred degrees.

Size - PVC pipes are only available in a small number of sizes. PVC pipes for plumbing can typically be purchased in sizes only ranging from $\frac{1}{2}$ to 2 inches. PVC pipe joints can be very bulky, which restricts them from use in tight places.

Weight - PVC pipes are very lightweight which can be both an advantage and a disadvantage. Because they are so lightweight, PVC pipes are more prone to cracking when they are dropped or stepped on. Compared with other types of plumbing pipes, such as copper, PVC pipes are more susceptible to cracking during an earthquake.

Environmental Effects - According to Savvy Cafe, PVC pipes contain traces of compounds that are harmful to the environment.

Uses of pvc material – to make ceiling, geodesic dome, water pipes, furniture, mats, doors, portable sets and frames.



2.7 MARBLE OR STONE - Marble is a metamorphic rock composed of recrystallized carbonate minerals, most commonly calcite or dolomite. Marble is typically not foliated, although there are exceptions. In geology, the term "marble" refers to metamorphosed limestone, but its use in stonemasonry more broadly encompasses unmetamorphosed limestone. Marble is commonly used for sculpture and as a building material.

Types of marble -

- White Marble(Fig 17) Blanco Macael, Blanco Ibiza, Blanco Tranco, Blanco Carrara,
- Cream Marble(Fig 18) Crema Marfil, , Crema Cenia, Crema Valencia
- Black Marble(Fig 19) Negro Marquina
- Red Marble(Fig 20) Rojo Alicante, Rojo Coralito, Rojo Levante, Rojo Bilbao
- Brown Marble(Fig 21) Dark emperador, Light emperador
- Pink Marble(Fig 22) Rosa Portugués, Rosa Zarci, Rosa Levante
- Yellow Marble(Fig 23) Spanish Gold, Amarillo Triana
- Green Marble(Fig 24) Verde Indio.



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Figure 17





Figure 20

Figure 18

Figure 19



Figure 21



Figure 22



Figure 23



2.8 – **LINOLEUM** - Linoleum, also called lino, is a floor covering made from materials such as solidified linseed oil (linoxyn), pine rosin, ground cork dust, wood flour, and mineral fillers such as calcium carbonate, most commonly on a burlap or canvas backing. Pigments are often added to the materials to create the desired color finish.

The finest linoleum floors, known as "inlaid", are extremely durable, and were made by joining and inlaying solid pieces of linoleum. Cheaper patterned linoleum came in different grades or gauges, and were printed with thinner layers which were more prone to wear and tear. High quality linoleum is flexible and thus can be used in buildings where a more rigid material (such as ceramic tile) would crack.



Figure 25

2.9 FORMICA - Formica laminate is a laminated composite material invented at the Westinghouse Electric Corporation in the United States in 1912. Originally used to replace mica in electrical applications, it has since been manufactured for a variety of applications. Today, the product is produced by New Zealand–based Formica Group, and has been since 2007.

Special papers are impregnated with synthetic resins, such as melamine, then subjected to heat and pressure; about seven sheets are bonded together to form a hard and durable surfacing material, $^{1}/_{16}$ inch (about 1 $^{1}/_{2}$ millimeters) thick. The top sheet is colored and patterned, and the finish may be either polished or dull. Wood grain and furniture finishes, either shiny or dull, are common. Formica is usually cemented to plywood or other suitable backing.

Uses of Formica - it is used in a huge variety including Formica countertop, cabinets, furniture and wallboards and other constructions etc.

Price – 850rs per sq.ft.







Figure 27

3. CONCLUSION

The study deal with the basic requirements of material which will be used while creating a food court according to area and the qualities types and all the elements that should be kept in mind while choosing a material for a food court design the study also create a difference between the



materials and their quality and properties while design food courts, if one have readed the following materials will make thing easy to design a place and fulfill requirements according their purpose.

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