Floor Finishes

Considerations before choosing a floor:

1. Will there be heavy wear?
2. Is area subject to moisture?
3. Does the floor need to be sound barrier?
4. How easy is it to clean & maintain?
5. To what degree floor need to be slip resistant?
6. Can it cause allergies or asthma?
7. How durable is the product?
8. Is it suitable for subfloor?

SUBFLOOR: A subfloor is what's below your flooring material.

Advantages of subfloor:

- Provides drainage abilities.
- Warms flooring material upto 30%.
- Protects against moisture seepage.
- Lengthens the life of new flooring.
- Increase its feel & quality.

Examples of subfloors: Plywood, Plank, Oriented Stran Board, Concrete.

Plywood: Made from thin sheets of usually pine wood those are glued together, forming 4ft x 8ft sheets.

Plank: There are ¾ inch thick x 4 – 8-inch-wide southern pine board which are nailed together.

Oriented Stran Board: It is a bunch of wood chips glued together.

Concrete: Consists of slabs of 4 – 6-inch-thick concrete pour. It may tend to absorb moisture which might take long to dry.

Classification of floor Finishes:

HARD	SEMI-HARD	SOFT
Cementitious (Terrazzo & Granolithic) Stone (Marble. Slate etc) Resin Bitumastic Magnesite Wood	Thermoplastic tiles Vinyl RubberLi noleum Cork	Carpets

Seals & Polishes: – (1 mm coating)

Seals are used to protect the flooring from dirt, moisture, spillage, stains, scratches, dents etc.

Polishes are laid over the seals. It extends the life of seals by 2 – 4 Year

HARD FLOORS

STONE – Long life and natural in appearance. All stones are heavy and must be put on a concrete sub floor. For e.g.

Marble:

- Composition: Calcite & Calcium Carbonate.
- Available in wide range of colours.
- More porous, soft & chemically sensitive than granite.
- Harmed by acid including soft drinks.
- Absorbs Oil.
- Should be sealed with penetrating sealers.
- Use neutral cleaners.
- Do not clean at high pressure.

Granite:

- Composition: Quartz & Feldspar.
- Hardest in nature.
- Resistant to most chemicals except oil.
- Sealed with oil repellent sealers.
- Do not use hydrofluoric acid.
- Can be cleaned at high pressure.

Slate:

- Composition: Grains of Mica & Quartz & Chlorite, Hematite& other Minerals.
- Dense, but soft & easily scratched.
- Low porosity to oil & other liquids.
- Has uneven surface.
- Sealed with oil repellent sealers.
- Never cleaned at high pressure.

CEMENTATIOUS – Good for areas that take hard wear & tear as they are resistant to chipping and cracking, scratching, indentations, heat insects and rot. Used in areas like basement, garage, utility areas, etc. They are easy to clean but should be polished carefully as polishing can make them too slippery. The cement in these floorings is absorbent hence avoid the use of strong alkali .e.g. are

Granolithic Floor:

- Composed of cement & fine aggregate mortar (being granite chippings).
- Hard wearing.
- Suitable in high traffic areas.
- May absorb water.

Terrazzo:

- Composition: Marble, Quartz, Granite, Glass, in cementitious mixtures.
- Does not need protection from wear & tear but from absorption & stains.
- Water base impregnates are applied.
- Use only neutral Ph cleaners.

Wood Floorings

Advantages -

- Long lasting,
- Easy cleaning,
- Doesn’t retain dust
- Warm
- Goes with all interiors
- Simple clean up

Disadvantages/ care to be taken

- Easily scratched.
- Easily dented
- Cannot take excessive wear & water.
- Needs occasional polishing & sealing.

Ceramic Tiles:

- Clay ware available in great variety of qualities, colours & sizes.
- Not affected by water, grease, acid or alkalis.
- May crack or break due to heavy weights.
- May be glazed or unglazed.
- e.g. Terra Kotta
- Hard baked, brownish red earthen wave often glazed & coloured.
- Not installed in high traffic area.
- May crumble & show wear easily.

Porcelain:

- Unglazed
- Dense
- Imperious
- Fine grained & smooth.
- Fire hardened – very hard
- Can be cleans at high pressure.

Quarry:

- Most common colours are dark red, brown & grey.
- Fire hardened – very hard
- Can be cleans at high pressure.

1. Resin Flooring:

- Consists of synthetic resins, usually epoxy, polyester or polyurethane with hardness by using hardness.
- Sometimes vinyl & marble chips are included.
- Unaffected by spillage of water, food, alcohol & chemicals.
- Inspite of being shiny they are non-skid.

2. Bitumastic:

- Joint less flooring consists of asphalt rolled in hot plastic state.
- Soft in texture.
- Impermeable to water.
- Softens with heat & dents easily.
- Harmed by spirits, oil & acids.
- Cost is low.

3. Magnesite:

- Consists of wood flour & other fillers mixed with burnt magnesite.
- Hardwearing & great compressive strength.
- Thermally insulating, non skid, frame retardant & spark proof.
- Extremely porous so no washing.
- Harmed by water, chemicals & abrasives.

Cleaning of Hard floorings

- Daily cleaning – Sweep and damp mop/ Vaccum cleaning
- Periodically – Wash/ scrub with detergent suds. Rinse Dry and Polish.
- Sealed to make the floor non slip and resistant to dirt.
- For tiles care to be taken to clean the grouting regularly with a detergent and tooth brush.

Semi Hard Finishes

- Resistant (except thermoplastic tiles).
- Good appearance.
- Unaffected by insects, pests & fungi.
- Easy to clean
- Less permanent than hard floorings

Thermoplastic Tiles:

- Made from asphaltic binds with inert fillers & pigments.
- Applied with water-based polish & may get slippery.
- Hard & noisy
- Get dents easily
- Softens with heat.
- Non-porous but harmed by strong alkalis, grease, spirits.
- Durable & cheap.

Vinyl Floor finishes:

- Manufactured from P.V.C synthetic resins, inert filers & pigments.
- Resistant to damage but very sensitive to heat.

They are of 4 types:

- Vinyl asbestos
- Flexible Vinyl flooring.
- Cushioned Vinyl floor.
- Slip resistant flooring.
- Avoid excessive use of water, stripping & abrasives.

Rubber Floorings:

- Available in tiles or sheets.
- During manufacturing rubber & fillings material pigments is vulcanized.
- It is soft, quite, resistant & comfortable.
- Non-absorbent & resist water.
- Harmed by sprit, grease, alkali's & coarse abrasives.

Linoleum:

- Composition: Mixture of powdered cork, resin, linseed oil, & pigments of it on jute canvas. Made to heat & pressure.
- Polished very often.
- Dents easily & damaged by alkali's
- Damp moping done using mild detergents.
- Further preservation adds baby oil in small amount to mop water.

Cork tiles:

- Composition: made from outer back of cork of oak tree with natural resins.
- Warm and restful appearance.
- Absorbent & very sensitive to heat.
- Avoid indentations, excessive water, abrasives, and high alkaline cleaners.

Cleaning of Semi Hard Floors

1. Daily cleaning – Sweep and Damp Mop / Vacuum cleaning
2. Periodic cleaning – Soft scrubbing with Neutral detergent lather. Rinse with a damp mop. Polish. If it is a sealed flooring use a self-shine polish occasionally
3. For rubber floorings wash only when dirty and don't over wet

SOFT FLOOR FINISHES

These are resilient floorings and include all types of carpets, rugs and mats. They are quiet and slip resistant.

Carpets

- Consist of a backing and a surface pile.
- Backing may be jute, nylon or polyester.
- Pile may be of wool, cotton, nylon or polyester.
- Used for their appearance, warmth, safety factor and sound insulation.

Care and Maintenance –

- Regular maintenance program since they are easily damaged
- Do not drag anything on a carpet
- New carpets should be lightly cleaned with a hand brush or a carpet sweeper. Trim off loose tufts
- Vacuum clean daily.
- Periodic cleaning includes shampooing, hot water extraction or dry powdering
    - Shampooing – Shampoos can be of two types Liquid and dry foam. Liquid shampoos produce very little foam but tend to leave a residue that traps dirt making it necessary to clean carpets frequently. Dry foam shampoos are also liquid but leave a dry foam on the surface of the carpet after application – hence the name dry foam. The foam loosens and lifts out the dirt, holding it on the surface of the carpet pile until it can be removed by dry suction. Dry foam shampoos contain some solvent in addition to the detergent to assist in removal of greasy soil. They also take less time to dry

- Hot water extraction: done by a hot water extraction machine which injects a non-foaming shampoo solution at high pressure through the carpet. Simultaneously it extracts the solution and soil.
- Dry powdering: A powder containing absorbents (saw dust), solvents & drying agents is sprinkled on the carpet & left for 15 to 20 minutes. The powder absorbs the grease & dirt & latter vacuum cleaned.

Floor care life cycle

Stripping: Removal of all existing finishes & seals. Clean thoroughly & allow to dry.

Scrub & Recoating: Consist of top scrubbing & removing any dirt/foreign material & re-applying finish to renew & extend the life of coating.

Restoration: Performed when routine maintenance no longer gives desired level of appearance.

Routine Maintenance: Remove dirt, foreign material. Includes daily cleaning. Improves appearance & life is increased may include dry mopping & wet methods.

Coating: Apply fix, thin uniform coats & give adequate drying time.

Factors one must consider in cleaning situation.

S = Soil

S = Surface

T = Time

A = Agitation

R = Regulation

T = Temperature

E = Environment

C = Cost