

RESINOUS FLOORING

AIA CES PROVIDER #40107632

COURSE # RES1004



Best Practice

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COURSE DESCRIPTION

An educational presentation
explaining the different
types of resinous floor coatings.

LEARNING OBJECTIVES

1. The different types of resinous flooring.
2. The Pros and Cons of each type of resinous flooring.
3. Best areas of specifications
4. Installation process of each flooring.

WHAT IS AN EPOXY FLOOR?

- Epoxy resins and hardeners
- Poured floor
- Adhesive bond only
- Relatively inexpensive
- Can be decorative by adding colored chips or flakes



WHAT IS AN MMA FLOOR?

- Methyl-Methacrylate
- Sharp fruity aroma
- Poured floor
- Acrylic resin with initiators
- Can be decorative with colored flake or quartz
- 1/8" to 3/16" thick
- Integral cove base
- Permanently bonds to substrate



WHAT IS A TERRAZZO FLOOR?

- Composite Material
- Poured floor or precast
- Marble, quartz, granite or glass sprinkled and poured with a binder that is cementitious or epoxy
- Decorative
- High maintenance
- Extremely durable



WHAT IS A CEMENTITIOUS URETHANE FLOOR?

- Poured floor
- Polyurethane cement
- Filler- quartz, cement, calcium hydroxide.
- Polymeric diisocyanate
- Polyurethane flooring system
- Breathable
- Limited color selection



These floors may look similar, but they are very different.



PROS

- i. Roll on installation
- ii. Decorative flake or quartz

CONS

- i. Full cure time 7-10 days
- ii. Installation temperature minimum of 45°
- iii. Not UV stable
- iv. Adhesive bond easily peels and cracks
- v. Lengthy repair time



PROS

- i. Fast cure time of 1 hour
- ii. Low temperature - 15
- iii. Very low maintenance cost-never needs stripping or waxing.
- iv. Permanently bonds to substrate.
- v. Inter-coat adhesion
- vi. Decorative

CONS

- i. Low Odor Threshold
- ii. Material cost



PROS

- i. Highly durable
- ii. Decorative
- iii. Long lasting

CONS

- i. Very expensive
- ii. High maintenance cost- polishing and grinding.
- iii. Heavyweight
- iv. Minimum installation temperature of 55°
- v. 24-hour cure time before grinding.
- vi. Requires periodically stripping & waxing
- vii. Slippery
- viii. Stains
- ix. Cracks easily
- x. More porous (cementitious)



PROS

- i. Withstands thermal shock
- ii. High abrasion resistant
- iii. Minimal maintenance cost
- iv. Heat resistant
- v. Self priming and leveling
- vi. Trowellable
- vii. Low odor
- viii. Water vapor transfer

CONS

- i. Industrial appearance
- ii. Long cure time



BEST AREAS OF APPLICATION

Epoxy

- a. Warehouse
- b. Pedestrian walkways
- c. Garage Floors
- d. Retail
- e. Light Industrial

MMA

- a. Laboratories
- b. Stadiums
- c. Retail
- d. Manufacturing
- e. Education Facilities
- f. Parking Garages
- g. Food Service

BEST AREAS OF APPLICATION

Terrazzo

- a. High End Retail
- b. Lobbies
- c. Airport Concourses
- d. High Traffic Hallways
- e. Areas Requiring Decorative Walkways

Urethane Cement

- a. Food & Beverage Processing Facilities
- b. Commercial Kitchens
- c. Thermal Shock Areas
- d. Wet Process Areas
- e. Freezers and coolers
- f. Higher tolerance to water vapor transmission

EQUIPMENT



EQUIPMENT



INSTALLATION PROCESS

Epoxy

- Floor preparation by diamond grinding or shot- blasting
- Patch cracks and divots
- Mix resin and hardener
- Broadcast of quartz or flake for decorative or slip resistant purposes



EPOXY INSTALLATION



INSTALLATION PROCESS

MMA

- a. Floor preparation by shot-blasting
- b. Application of penetrating primer over the entire substrate
- c. Patch cracks and divots
- d. Application of body coat broadcast with quartz or flake
- e. Apply top coats



PERFORMANCE
COATINGS

RES-TEK
Commercial & Industrial Flooring Solutions

MMA INSTALLATION



INSTALLATION PROCESS

Terrazzo

- a. Floor preparation by diamond grinding or shot-blasting
- b. Primer and membrane applied to the floor.
- c. Divider strips applied to create a pattern.
- d. Blending of terrazzo chips
- e. Epoxy or cement based slurry is poured into the design forms
- f. Rough grinding
- g. Grout, fine grinding and seal

TERRAZZO INSTALLATION



INSTALLATION PROCESS

Urethane Cement

- a. Floor preparation by shot-blasting
- b. Mix cementitious urethane components
- c. Pour flooring
 - Self leveling vs. trowelling
- d. Optional broadcast
- e. Optional Top Coat

URETHANE CEMENT INSTALLATION





PERFORMANCE
COATINGS



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