



EPOXY & RESINOUS FLOORING | SPECIFICATION CHECKLIST

1. SYSTEM TYPE & BUILD

Define the appropriate system based on environment and performance needs:

- Thin-mil coating (1–3 mil)
- High-build epoxy system (10–40 mil)
- Broadcast system (quartz/flake)
- Mortar system
- Urethane cement system
- Polyaspartic / urethane topcoat

Note: Thin-mil systems are coatings. Broadcast and mortar systems function as flooring systems.

Design Guidance:

System selection should be based on performance demands, not finish preference.

- Thin-mil = cosmetic, short lifecycle
- High-build = baseline commercial durability
- Broadcast = durability + slip resistance
- Urethane cement = heavy duty / thermal shock / wet environments

2. PERFORMANCE REQUIREMENTS

Clearly define expected performance:

- Traffic type (foot / cart / forklift / heavy equipment)
- Impact resistance requirements
- Chemical exposure (oils, acids, cleaners, etc.)
- Thermal shock exposure (hot water, steam, washdown)
- Wet environment/washdown conditions

3. MOISTURE & SUBSTRATE CONDITIONS

Failure to define this is the #1 cause of failure:

- ASTM F2170 RH testing required
- Acceptable RH threshold: _____ %
- Vapor barrier present below slab? Yes No Unknown
- Moisture mitigation system required Yes No

Important: Epoxy is not waterproof from below.

Moisture mitigation systems may be required for high RH conditions and can support up to 100% RH depending on system design.

Failure to define moisture protocol is the leading cause of epoxy flooring failure.

4. SURFACE PREPARATION

Define required surface profile:

- Surface prep method:
 - Grinding
 - Shot blasting
 - Scarification

Required ICRI CSP level: _____

Typical ranges:

- Thin-mil: CSP 2–3
- Broadcast: CSP 3–5
- Mortar: CSP 4–7

5. SYSTEM THICKNESS & BUILD

Avoid vague specifications:

- Total system thickness: _____ mil
- Number of coats: _____
- Coverage rates defined (sq ft/gallon) Yes No

Note: Inconsistent coverage rates (sq ft per gallon) are a common cause of premature system failure.

6. SLIP RESISTANCE & TEXTURE

Balance safety and cleanability:

- Smooth finish (minimal traction)
- Light broadcast
- Full broadcast system
- Custom slip resistance requirement: _____

- DCOF / ANSI A137.1 requirement specified Yes No

Note: Increased texture reduces cleanability.

7. TOPCOAT & FINISH

Define final system performance layer:

- Epoxy topcoat
- Urethane topcoat (recommended for scratch + UV resistance)
- Polyaspartic topcoat

- UV exposure present Yes No

8. ENVIRONMENTAL & INSTALLATION CONDITIONS

- Interior Exterior
- Ambient temperature requirements defined Yes No
- HVAC conditions during install defined Yes No

9. COORDINATION REQUIREMENTS

- Division 03 (Concrete) coordination defined
- Division 09 (Finishes) coordination defined
- Slab age/curing requirements specified
- Contaminant removal requirements defined

10. LIFECYCLE & MAINTENANCE EXPECTATIONS

- Expected service life: _____
- Recoat interval defined Yes No
- Maintenance protocol defined Yes No

CRITICAL SPECIFICATION NOTE

Generic “epoxy flooring system” language is insufficient.

Incomplete specifications can result in:

- Delamination and bond failure
- Improper system selection
- Increased lifecycle cost
- Warranty disputes

NEED PROJECT-SPECIFIC GUIDANCE?

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Surface Solutions Consulting provides early-phase specification support to reduce risk, improve system performance, and ensure alignment with real-world conditions.

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