OUTGASSING & PINHOLING PREVENTION

OVERVIEW

Outgassing occurs when entrapped air or moisture in the concrete escapes during coating application, forming bubbles or pinholes in the film. Controlling substrate preparation, temperature, and application methods is critical to defect-free results.

Causes

- Porous or lightweight concrete.
- Elevated slab temperature or sun-heated slabs.
- High viscosity coatings applied too thickly.
- Rapid airflow accelerating solvent evaporation.

Prevention Techniques

- Apply low-viscosity primer or key coat to seal pores.
- Schedule installation during cooler parts of the day.
- Ensure sufficient cure time of primers before applying topcoats.
- Avoid applying thick coats on hot or highly porous slabs.

Best Practices

- Conduct small test patch before full installation.
- Use vacuum-assisted grinding to reduce air pockets.
- Maintain stable temperature and humidity.