



JP Specialties, Inc. / Earth Shield® Waterstop

Tech Tips 029

Epoxy Coating Lifespan and Commentary

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Proper installation is the key to achieving longevity of the epoxy. A typical epoxy lifespan is five to ten years with routine maintenance.

The lifespan of epoxy coatings on concrete can vary depending on several factors, such as the quality of the epoxy material used, the preparation and application process, and the level of traffic or usage the coated surface experiences.

A properly installed epoxy coating on concrete floors or walls can last for five to ten years or more with proper maintenance and care. To extend the lifespan of epoxy coatings, it's crucial to routinely

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clean the surface, avoid heavy impacts or dragging heavy objects, and periodically recoat or touch up the surface.

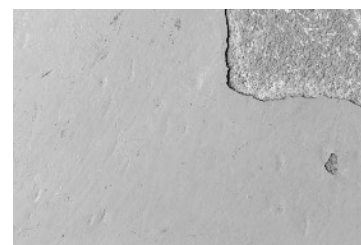
Cure Time and Installation

Before applying epoxy coatings, fresh concrete should be cured for at least 28 days. Proper concrete curing is essential to ensure a strong bond between the surface and the epoxy coating. During the curing period, the concrete gains strength and undergoes chemical hydration processes vital for its long-term durability.

Before applying the epoxy coating, ensure the concrete surface is clean, dry, and free of contaminants such as dirt, oil, or grease. Proper surface preparation is crucial for ensuring the adhesion and performance of the epoxy coating. Follow the manufacturer's recommendations for surface preparation and application of the epoxy coating to achieve the best results.

Joint Movement

Epoxy coatings on concrete are not known for their flexibility in accommodating joint movement. Since they are rigid materials, epoxy coatings may crack or delaminate if the concrete substrate experiences significant movement due to changes in temperature, settling, joint movement, or other factors.



A typical epoxy failure from delamination.

Flexible sealants or caulking materials specifically designed for joint movement are required to address joint movement in concrete surfaces. These materials can accommodate the expansion and contraction of concrete without causing damage to the coating. It's essential to properly prepare joints and seams before applying epoxy coatings to ensure long-lasting performance.

Heat Resistance

Epoxy coatings can degrade and release harmful fumes when exposed to high temperatures. The thermal degradation temperature

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of epoxy coatings typically varies depending on the specific formulation and additives used in the coating. Generally, epoxy coatings can withstand temperatures up to 200 to 300 degrees Fahrenheit (93-149 degrees Celsius) without significant degradation. Excessive heat exposure beyond these temperatures can cause the epoxy coating to soften, bubble, or crack.

While they are not highly susceptible to ignition, precautions should still be taken to avoid exposing epoxy coatings to extreme heat sources that could compromise their structural integrity and functionality.

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