



Climate® Sealants: Reliable Bonding to Green Concrete

High-performance technology for dependable adhesion in challenging concrete conditions

Overview

Climate® Sealants are advanced, moisture-curing silyl-modified polymer (SMP) sealants engineered for superior adhesion—even on damp or early-age ('green') concrete. They combine the durability of silicone with the flexibility of polyurethane, without the drawbacks of either.

Advantages on Green Concrete

- Bonds to damp or recently placed concrete surfaces (1–7 days old)
- Resistant to high alkalinity (fresh cement paste pH >12)
- Cures by moisture—no bubbling or gassing
- No isocyanates, no solvents, and very low VOC
- Excellent UV and weather resistance for interior and exterior applications

Recommended Uses

- Tilt-up and precast concrete panel joints
- Control and expansion joints in slabs and walls
- Façade, window, and parapet perimeter seals
- Sidewalks, curbs, and architectural concrete joints

Sealant Type Comparison

Sealant Type	Adhesion to Green Concrete	Moisture Tolerance	Alkali Resistance	Typical Use
Polyurethane (PU)	Poor	Low	Fair	Cured concrete joints only
Silicone	Fair	Moderate	Good	Façade and glass perimeter joints
Climate® Sealants	Excellent	High	Excellent	All concrete joints, including green concrete

Best Practices for Use on Green Concrete

- Ensure no visible surface water (SSD condition acceptable)
- Remove laitance, curing compounds, and contaminants
- Apply between 40°F–100°F for best results
- Conduct a field adhesion test before large-scale application
- Follow ASTM C920, C719, and C794 test guidelines

Summary

Climate® Sealants deliver proven adhesion to green concrete where conventional sealants fail. They provide long-term performance, elasticity, and chemical resistance, making them ideal for high-movement joints and demanding construction environments.

