

Mission Critical Flooring System

SpecChem manufactures a complete flooring system, designed specifically for data centers.

www.SpecChem.com

SPECCHEM
Solution to Service

Manufactured for concrete. Built for data centers.



SpecChem manufactures the complete Mission Critical Flooring System engineered to work in sequence, from fresh slab placement through long-term surface protection. Every product is formulated and manufactured in the USA.

The SpecChem Difference

SpecChem focuses exclusively on concrete construction materials. Every product in this system is formulated by the same team, manufactured in the same facilities, and tested for in-sequence compatibility on a single slab.

One submittal. One accountability chain. No compatibility guesswork.

Single-Source System

Multiple products, one manufacturer. Streamlines submittals and simplifies the specification process.

Electrostatic Protection

SpecHard-IntraSeal is specifically formulated with electrostatic dissipative properties for sensitive electronics environments.

USA Manufacturing

All products are manufactured in the USA in one of our six nationally distributed manufacturing plants.

WHAT SPECIFIERS MUST ADDRESS

Four critical demands on every data center floor

Data center floors operate under a unique set of demands — many of which do not apply to conventional commercial or industrial slabs. Specifying a floor system without addressing these risks creates long-term liability for owners and operators.

01

Electrostatic Buildup

CHALLENGE
Untreated concrete generates and retains static charge. In environments housing sensitive server hardware, electrostatic discharge is a direct operational risk.

SOLUTION
SpecHard IntraSeal incorporates electrostatic-dissipative technology, providing a safe, compliant floor surface that meets ESD requirements for mission-critical environments.

SpecHard IntraSeal

02

Dusting and particle contamination

CHALLENGE
Concrete floors that dust generate fine particulate matter that contaminates air handling systems, accelerates equipment wear, and represents a continuous maintenance burden.

SOLUTION
SpecHard IntraSeal and LithSeal Lite both densify and harden the concrete matrix to eliminate surface dusting, delivering a dust-proof floor for the life of the facility.

SpecHard IntraSeal LithSeal Lite

03

Joint failure under rolling loads.

CHALLENGE
Control joints in high-traffic data halls are subject to repeated loading from heavy server racks, lifts, and rolling equipment. Poorly filled joints crack, spall, and degrade rapidly.

SOLUTION
Rapid Flex 90 semi-rigid polyurea and Poly Fix polyurethane repair binder provide structurally sound joint filling and rapid crack repair with minimal downtime.

Rapid Flex 90 Poly Fix

04

Zero-tolerance maintenance windows

CHALLENGE
Live data centers cannot tolerate extended floor maintenance shutdowns. Products must deliver maximum service life with minimal intervention requirements.

SOLUTION
The complete SpecChem system is engineered for longevity, from proper curing at placement to durable surface protection, reducing the frequency and extent of future maintenance events.

E-Cure SpecGuard LithSeal Lite

COMPLETE SYSTEM SPECIFICATION

Mission Critical Flooring System

FINISHING AID

IntraFilm

Advanced colloidal silica finishing aid

Applied during placement to lubricate the surface for more efficient finishing, reduce efflorescence, and enhance early slab durability and long-term strength development. Reduces bleeding and improves workability without compromising mix design.

Easier finishing | Reduces efflorescence | Enhanced slab strength

CURING COMPOUND

E-Cure

Penetrating membrane-forming curing compound

Penetrates fresh concrete to form a temporary moisture-retaining membrane, ensuring proper cement hydration, strength development, and surface hardness. Non-yellowing, non-flammable, and odorless. USDA accepted and VOC compliant; suitable for occupied environments.

USDA accepted | VOC compliant | Non-flammable | Non-yellowing

CURE AND SEAL

Cure Shield

Silane / acrylic copolymer cure and seal

Solvent-based blend of silane and pure acrylic copolymers engineered for simultaneous curing and sealing of fresh concrete. Provides additional protection to existing concrete. Includes water-based siliconate densifier properties. VOC-compliant and non-yellowing. Available in water-based formula.

Dual-action cure + seal | Siliconate densifier | VOC compliant

SEALER / DENSIFIER

SpecHard-IntraSeal

Water-based siliconate sealer / densifier / hardener

Seals, densifies, and hardens the concrete matrix to eliminate surface dusting and significantly reduce long-term maintenance costs. The electrostatic-dissipative formula is critical for data center floor specifications. LEED v4 compliant. VOC compliant. Dust-proof, non-yellowing. Low sheen finish that beautifies the concrete surface.

Electrostatic dissipation | LEED v4 compliant | Dust-proof | VOC compliant

COMPLETE SYSTEM SPECIFICATION

Mission Critical Flooring System

LITHIUM SILICATE DENSIFIER

LithSeal Lite

Economical lithium silicate sealer / densifier / hardener

Penetrates deeper than conventional silicates to react with calcium hydroxide in cured concrete, producing calcium silicate hydrate that fills pores, improves abrasion resistance, and hardens the surface. Traffic-ready in one hour. Application range 40°F–100°F. USDA accepted.

- Traffic-ready in 1 hour
- Improved abrasion resistance
- USDA accepted

CONCRETE PROTECTANT / POLISH

SpecGuard

Multi-component water-based polymeric protectant

Cross-linking nano-technology protectant that improves surface appearance and durability. Provides 24-hour stain protection without buffing. Water-based and low-odor, safe for occupied or partially occupied data center construction phases. Does not require buffing for activation.

- 24-hr stain protection
- No buffing required
- Low odor
- Water-based

CONTROL JOINT FILLER

Rapid Flex 90

High-performance semi-rigid polyurea control joint filler

100% solids, two-component, UV-resistant semi-rigid polyurea engineered specifically for filling control joints in mission-critical slab environments. 1:1 pourable/pumpable ratio. Resists tearing due to repetitive dynamic movement from heavy rolling equipment loads. Superior moisture resistance.

- 100% solids
- UV-resistant
- Semi-rigid
- Superior moisture resistnace

POLYURETHANE REPAIR BINDER

Poly Fix

High-strength hybrid polyurethane concrete repair binder

Two-component ultra-low viscosity hybrid polyurethane binder for penetrating hairline cracks, patching concrete spalls, and restoring structural integrity at control joints. 1:1 pourable/pumpable ratio. Cures in 10 minutes. Structurally restores concrete surfaces, minimizing data center downtime during remediation.

- 10 minute cure
- Structural restoration
- Hairline crack penetration
- 1:1 Ratio



FOR SPECIFIERS AND DESIGN TEAMS

How to specify the SpecChem Mission Critical Flooring System

The Mission Critical Flooring System is designed to be specified as a complete system. Each product is available as an individual submittal, or as part of a full system package. SpecChem's technical team can provide CSI-formatted specifications, product data sheets, safety data sheets, and application guidance for all products.

What SpecChem Provides

Technical data sheets

Individual TDS for all eight products with application rates, coverage, and requirements.

Safety data sheets

Complete SDS documentation for submittal packages.

System compatibility confirmation

Written confirmation of in-sequence product compatibility across the full system.

Application guidelines

Substrate preparation, coverage rates, temperature requirements, and cure times for data center environments.

Technical support

On-call technical support during application, available.

Specification Considerations

ESD requirements

Confirm whether ESD flooring is required per ANSI/ESD S20.20 or facility-specific standards. SpecHard IntraSeal provides static-dissipative properties.

VOC and indoor air quality

All products in the system are VOC-compliant. Confirm applicable regional standards for the project jurisdiction.

LEED credits

SpecHard IntraSeal supports LEED v4 credits. Confirm applicable credit categories with your LEED AP.

Temperature at application

LithSeal Lite has an application temperature range of 40–100 F. Confirm facility temperature during the construction phase.

Traffic timing

LithSeal Lite is traffic-ready in 1 hour. Poly Fix cures in 10 minutes. Confirm scheduling requirements for phased construction.

Sustainable, Durable, & Efficient

At SpecChem, sustainability on every project is crucial. Our Mission Critical Flooring System is VOC-compliant, supporting indoor air quality standards during construction and occupancy. Water-based formulations reduce chemical exposure without compromising performance. SpecHard-IntraSeal supports LEED v4 compliance and delivers a dust-proof, hardened surface that reduces maintenance frequency over the facility's operational life. Single-source system specification reduces material waste, eliminates compatibility-driven over-application, and simplifies LEED submittal documentation.



LEED v4
SpecHard IntraSeal compliant for green building certification

VOC
VOC compliant across the full product system

USDA
USDA accepted products where applicable

ESD
Electrostatic dissipative, critical for sensitive electronics environments



About SpecChem

At SpecChem, we serve five key concrete markets: commercial, industrial, DOT & infrastructure, residential, and repair & restoration. We are active in nearly every industry trade group related to these key market segments and have a strong team of industry professionals who are focused on building long-term relationships, increasing distributor profitability, continually evolving, developing new products, and providing premium customer service.

SpecChem is an American manufacturer, headquarted in the heartland, supplying the concrete distributor network with high quality, industry-leading concrete construction materials.

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