# SEMICONDUCTOR FACILITIES SAFER, FASTER, SIMPLER CONSTRUCTION



In our ever-evolving world, technology has become a critical component of our everyday lives. Industry 4.0 continues to usher in levels of connectivity today and into the unforeseen future. At the core of this connectivity are semiconductors, which make the digital world possible. Sherwin-Williams offers coatings solutions to meet the variety of challenges found in the construction, outfitting and continuous operation of semiconductor fabs, including the supporting infrastructure found on Fab Campuses.

#### PROTECTIVE COATINGS FOR EVERY AREA OF THE SEMICONDUCTOR CAMPUS



Fabrication (FAB)



Gas Chemical Storage (GCS)



**Central Utility Building (CUB)** 



Warehouses



Workspaces



Treatment



Industrial Wastewater

#### PREMIUM CONSTRUCTION COATINGS FOR STEEL

Optimal protection for the structural steel in semiconductor fabs and supporting buildings is of vital importance. Coatings that offer high durability and corrosion resistance help safeguard the integrity of the steel both during and after construction. Moreover, products must be low emitting to meet the rigorous requirements of this technically complex industry.



## **Corrosion Resistance**

Withstand corrosion exposure to help maintain the integrity of steel structures.



## **Throughput Optimization**

Quick cure steel primers offer faster throughput to meet shipping timelines and project schedules.



#### Application and Aesthetics

Deliver an attractive smooth finish for Architecturally Exposed Structural Steel (AESS) in various color options.



#### Damage Resistance

Resist physical damage caused by the rigors of handling, transportation and high traffic throughout the construction process.

## **FROM SPEC TO PROTECT**

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# SAFER, FASTER, SIMPLER CONSTRUCTION

#### PREMIUM INTUMESCENT FIRE PROTECTION FOR STEEL

Essential for any facility, fireproofing is especially important for high fire risk areas, such as semiconductor fab clean zones with their large quantities of electrical equipment, fully automated processes, continuous airflow, and flammable and explosive substances. With fast-tracked project timelines creating an increase in on-site construction activity, choosing off-site application of intumescent fire protection materials makes sense. Off-site fireproofing of structural steel affords simpler project scheduling as well as a safer and cleaner construction environment, compared to traditional on-site sprayed fire-resistive materials.



#### **Chemical/Corrosion Resistance**

Withstands exposure to corrosive chemicals often found in semiconductor facilities, thus helping maintain the integrity of steel structures.



#### **Weather Resistance**

Helps prevent corrosion and deterioration due to prolonged exposure to harsh environmental and weather conditions.



## **Damage Resistance**

Coating withstands physical damage caused by the rigors of handling, transporting and erecting steel throughout the construction process.



#### **Throughput Optimization**

Coatings technology meets the specified hourly rating with lower dry film thickness, fewer coats and less material and labor, saving time and money.



## **Application and Aesthetics**

Delivers an attractive smooth finish on Architecturally Exposed Structural Steel (AESS) in various color options.



#### **Clean Zones**

Airborne Molecular Contamination (AMC) tested for use in Clean Zones.

## PREMIUM CHEMICAL RESISTANT COATINGS (CRC)/RESINOUS FLOORING

High-performance chemical-resistant floor coatings and secondary containment lining systems are critical to protecting concrete surfaces in aggressive chemical storage and loading environments. Core products have been identified, qualified, and determined suitable for use in the various specified chemical resistant coatings (CRC) applications in semiconductor facilities.



#### **Chemical Resistance**

Protects concrete substrates from corrosive exposure and erosion while containing chemicals, helping prevent potential ground and environmental contamination.



#### **Moisture Mitigation**

Blocks moisture vapor transmission from penetrating up through concrete slab; single coat application and rapid cure time enable faster job completion.



#### **Static Control**

Helps protect sensitive equipment, products and employees and mitigate potential explosions.



#### **High Traffic**

Withstands heavy wear and tear from both vehicle and foot traffic, helping protect the concrete from divots, cracking and trip hazards.



## **Slip Resistance**

Provides appropriate texture to help aid against potential slip and fall incidents for both personnel and equipment.



## **UV Resistance**

Withstands exposure to ultraviolet light without yellowing or chalking.

## THE SHERWIN-WILLIAMS DIFFERENCE

Sherwin-Williams Protective & Marine delivers world-class industry subject matter expertise, unparalleled technical and specification service, and unmatched regional commercial team support to our customers around the globe. Our broad portfolio of high-performance coatings and systems that excel at combating corrosion helps customers achieve smarter, time-tested asset protection. We serve a wide array of markets across our rapidly growing international distribution footprint, including Energy, Water & Wastewater, Bridge & Highway, Steel Fabrication, Flooring, Manufacturing & Processing, Fire Protection, Marine, Rail and Power.