

# PRODUCT CATALOG

## 2023/2024



# CAPABILITIES STATEMENT



Surtreat is a concrete solutions company that provides a wide range of products and services to repair, protect, and strengthen concrete.

Our products and services are based on a **Scientific Approach** to concrete deterioration and have been proven to be effective in a variety of applications. Our technologies have been tried and tested for over 30 years and are used by government agencies, construction companies, and property owners around the world.

## SOLUTIONS

At **Surtreat**, we are proud to offer a wide array of surface applied concrete **repair**, **protection** and **strengthening** ranging from:



**CORROSION  
PROTECTION**



**BONDING AGENTS**



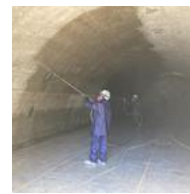
**CONCRETE  
CLEANERS**



**WATERPROOFERS**



**COATINGS AND  
WATER  
REPELLENTS**



**CONCRETE  
STRENGTHENERS**



**FRP  
STRENGTHENING**

### NAICS CODES:

Corrosion Inhibitors Manufacturing - 325998  
Water Repellent Coatings for Concrete - 325510  
Concrete Additive Manufacturing - 325998

### SPECIFIED BY:



US Army Corps  
of Engineers



**Julie Mizzi**, President and CEO

[www.coordsystems.com](http://www.coordsystems.com) | [bids@coordsystems.com](mailto:bids@coordsystems.com)

[www.surtreat.com](http://www.surtreat.com) | [info@surtreat.com](mailto:info@surtreat.com)

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## REPAIR SOLUTIONS

Surtreat's concrete **repair** solutions address the **root causes** of concrete deterioration, not just the symptoms. Our products include **concrete repair material, corrosion protection, and concrete cleaners**. These products work together to restore concrete structures to their original condition.

If you are looking for a way to repair your concrete structure, Surtreat is a great option. We have the products, expertise, and experience to help you repair your concrete structure for the **long haul**.

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## PROTECTION SOLUTIONS

Surtreat's concrete **protection** solutions are designed to **maintain** concrete in its original condition and **prevent** it from deteriorating and decaying. Our products include **waterproofers, coatings, and water repellents**. These products work together to protect concrete against weather and the elements.

If you are looking for a way to protect your concrete structure, Surtreat is a great option. We have the products, expertise, and experience to help you protect your concrete structure for the **long haul**.

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## STRENGTHENING SOLUTIONS

Surtreat's concrete strengthening solutions are designed to **augment** your concrete structure and **increase** its capabilities from what was originally designed. Our products include **bonding agents**, **concrete strengtheners**, and **fiber reinforced polymer composites**. These products work together to protect concrete against weather and the elements.

If you are looking for a way to **supplement** your concrete structure, Surtreat is a great option. We have the products, expertise, and experience to help you protect your concrete structure for the **long haul**.

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### CONCRETE STRENGTHENERS

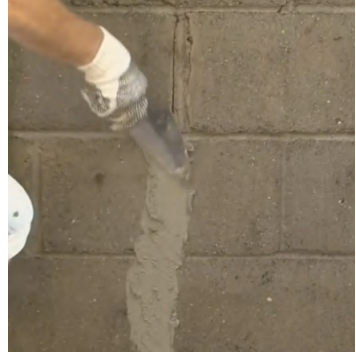
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# REPAIR SOLUTIONS

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**CONCRETE REPAIR**



**CORROSION  
PROTECTION**



**CONCRETE  
CLEANERS**



**CONCRETE REPAIR**



# SURTREAT HYDROSET

Water Resistant Hydraulic Cement

## PRODUCT DESCRIPTION

A non-shrink, high-strength waterproof mortar for concrete, masonry, brick, stone and stucco. Mix with water into a putty consistency. Sets in 3-5 minutes to stop active water leaks and seepage under pressure through holes, cracks, wall-floor joints, swimming pools, water storage tanks, fountains, ponds, and drains. Can be applied under water so pools do not have to be drained for crack repair. Also use to seal around pipe and to anchor hooks, bolts, and metal to concrete. Does not contain metallic aggregates or corrosive agents. Will not shrink or oxidize.



## WHEN TO USE

Surtreat HydroSet is an ideal solution for patching and repairing spalled concrete that is exposed to water.

- Sealing wall-floor joints, mortar cracks, holes, chimneys, and pipes to prevent water infiltration and leaks.
- Stopping the flow of water in areas where water intrusion is a problem, such as basements, garages, and crawl spaces.
- Anchoring railings, hooks, bolts, machinery, and other equipment to concrete to create a strong and reliable bond.
- Repairing damaged concrete, cinder block, poured concrete, masonry, stone, brick, or stucco.
- Securing bolts or dowels in concrete when pouring new concrete or repairing existing concrete.
- Filling voids, cracks, or cavities in concrete to improve structural integrity.
- Installing new equipment or machinery on concrete surfaces.

## BENEFITS

- Sets in 3-5 minutes
- Seals deep cracks and holes
- Anchors railings and posts
- Simple to use
- Can be applied underwater
- Does not contain corrosive agents
- Extremely durable
- Cannot be peeled or scratched off
- Can be painted, coated, or over laid as needed
- Anchors railings and posts

## EXPECTED PERFORMANCE



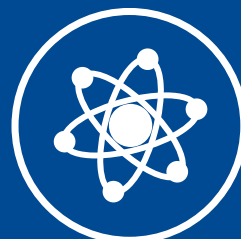
**STOPS ACTIVE  
LEAKS IN 3-5  
MINUTES**



**WILL NOT  
SHRINK**



**HIGH  
STRENGTH**



**WILL NOT  
CORRODE**



**IMPROVE  
CONCRETE  
INTEGRITY**



**CORROSION  
PROTECTION**

# TPS II:

a multi-phase, inorganic, surface applied concrete densifier and corrosion inhibitor for use on hardened concrete. **TPS II** restores/promotes alkali passivity in the affected areas close to the rebar. **TPS II** also migrates as liquid including in the ionic state and is an anodic site corrosion inhibitor.



## WHEN TO USE

Use on cement-based steel reinforced substrates that has been weakened by age, contaminants, chlorides and are porous.

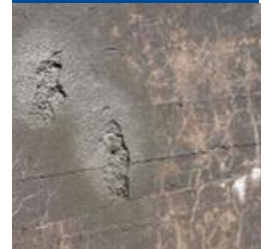
**When corrosion is present or suspected.**



**On chloride contaminated concrete surfaces.**



**Concrete surfaces that show signs of carbonation.**



## BENEFITS

- Promotes resistivity
- Inhibits chloride migration.
- Restricts and prevents water ingress.
- Inhibits Corrosion
- Simple to use
- Environmentally friendly
- Breathable
- Extremely durable
- Cannot be peeled or scratched off
- Can be painted, coated, or over laid as needed

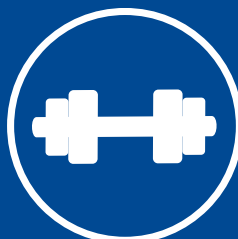
## EXPECTED PERFORMANCE



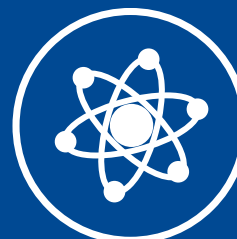
**PERMEABILITY  
REDUCTION**



**REDUCTION OF  
WATER-  
SOLUBLE  
CHLORIDE  
ACTIVITY**



**INCREASE IN  
CONCRETE  
STRENGTH**



**REDUCES  
CHEMICAL  
REACTIVITY**



**ELEVATES  
CONCRETE PH**



# SURTREAT TPS XII

Vapor Phase Corrosion Inhibitor

## TPS XII:

is an organic, surface applied corrosion inhibitor for use on hardened concrete. **TPS XII** creates a durable passivating film on the surface of the embedded steel to pacify both anodic and cathodic sites of the corrosion cell. **TPS XII** migrates as vapor to deposit on the embedded steel.



## WHEN TO USE

Use on cement-based steel reinforced substrates that shows signs of rebar corrosion.



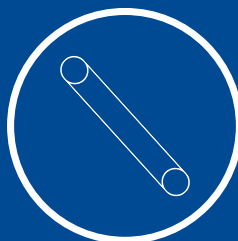
## BENEFITS

- Inhibits corrosion in anodic and cathodic sites
- Simple to use.
- Can be applied to a variety of surfaces
- Environmentally friendly
- Extremely durable
- Penetrates easily
- Cannot be peeled or scratched off
- Can be painted, coated, or overlaid as needed
- Breathable

## EXPECTED PERFORMANCE



**CREATES FILM ON  
SURFACE THE  
EMBEDDED STEEL**



**INHIBIT  
CORROSION OF  
EMBEDDED STEEL**



**PROTECTS ANODIC  
AND CATHODIC  
SIDES OF CORROSION  
CELL.**





# SURTREAT TPS XV

Vapor Phase Corrosion Inhibitor Admixture

## TPS XV:

is an organic, corrosion inhibitor admixture for new concrete. **TPS XV** creates a durable passivating film on the surface of the embedded steel to pacify both anodic and cathodic sides of the corrosion cell. **TPS XV** migrates as vapor to deposit on the embedded steel components.



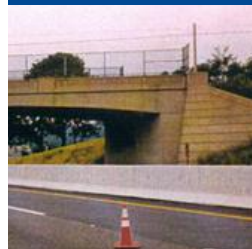
### WHEN TO USE

Use on cement-based steel reinforced substrates that will be exposed to corrosion inducing environments/elements.

New concrete structures to prevent corrosion



Areas with chloride induced corrosion



Structures with signs of embedded steel corrosion



### BENEFITS

- Inhibits corrosion in anodic and cathodic sites.
- Simple to use.
- Can be applied to a variety of surfaces
- Environmentally friendly
- Breathable
- Extremely durable
- Penetrates easily
- Cannot be peeled or scratched off
- Can be painted, coated, or overlaid as needed

### EXPECTED PERFORMANCE



**SIMPLE TO USE -  
ADD TO CONCRETE  
MIX DIRECTLY**



**FORMULA  
DOESN'T DISRUPT  
CURING PROCESS**



**LONG TERM  
PROTECTION FOR  
NEW CONCRETE**



# RUST CONVERTER

Corroded Metal Surface Protection Coating

**Rust Converter:** a surface applied exposed steel and rebar protective primer that chemically converts rust into a black protective surface on steel. Rust Converter is the answer for stopping corrosion of ferrous metals. This primer is designed to provide an additional layer of protection for the embedded metal component.



## WHEN TO USE

Use on exposed steel or rebar that is showing signs of active corrosion/rusting prior to the application of any paint or coating.

**When rust is present or suspected.**



**On rusted rebar surfaces.**



**Exposed steel rusted areas.**



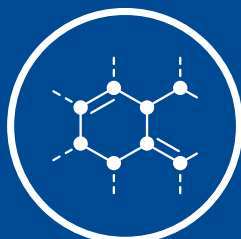
## BENEFITS

- Surface applied
- Minimal surface preparation
- Weather resistance without cracking
- Additional protection against corrosion
- Simple to use
- Environmentally friendly
- Breathable
- Extremely durable
- Cannot be peeled or scratched off
- Can be painted, coated, or overlaid as needed

## EXPECTED PERFORMANCE



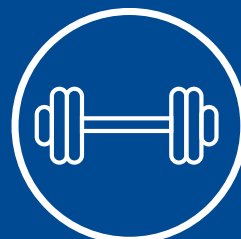
**STOPS  
CORROSION ON  
FERROUS  
METALS**



**CHEMICALLY  
CONVERT RUST  
INTO BLACK  
PROTECTIVE  
SURFACE**



**CREATES A  
PAINTABLE  
SURFACE ON  
RUSTED  
STEEL**



**WILL NOT CHIP  
OR PEEL**



**PREVENT  
FUTURE  
CORROSION**



# VCI PRIMER TECHNICAL DATA SHEET

EPOXY POLYAMIDE PRIMER FOR STEEL ASSETS  
MIL-DTL-24441/20A (SH) FORMULA 150, TYPE-ID

## DESCRIPTION

This epoxy-polyamide, two component, lead and chromate free primer coating is designed to conform the specific composition and performance requirement of Federal Specification MILDTL-24441/20A (SH) Formula- I 50, Type-III, and is recommended to be used for painting land and marine structures. Surtreat vapor phase corrosion inhibitor (VCI) is added to Part A in an amount that when combined with Part B the applied dry film solids will contain 2.5 Wt. % of VCI solids.

## PRINCIPAL CHARACTERISTICS

- Excellent rust preventative properties in adverse or chemically polluted atmospheres.
- Corrosion inhibiting properties are increased by a factor of 5 to 10 times due to addition of the VCI agent that will migrate through a rusty surface and inhibit further steel. surface corrosion.
- Will inhibit corrosion of both fresh and salt corroded steel surfaces.
- Easy application by brush and airless spray.
- Good adhesion properties on white steel when surface is abraded and on rusty steel
- surface due to corrosion texture and achieve adhesion rating of 5B per ASTM B 117.
- Excellent water and weather resistance for interior and exterior use.
- Resistance to spill/splash of mild chemicals.

## RECOMMENDED SUBSTRATE CONDITION

**Steel:** The surface must be perfectly dry before application.

**Corroded Steel:** Clean and degrease surface to remove surface contaminants such as oils, soils, loose paint and flakey rust by pressure washing or mechanical means. Soundly adhered surface rust can be over-coated with this product.

During application and the first 24 hours of curing, the substrate temperature must be above 41°F (5°C) and at least 5°F (3°C) above the dew point.

## PACKAGING

2 gal kits

## TECHNICAL DATA

Color and Finish	Gray, Flat
Mass Density	~11.25 lbs. / gal
Solids by Volume	63 +/- 1%
VOC (Before Thinning)	2.80 lbs. / gal or 340 gr / liter
Theoretical Spreading Rate @1 Mil DET	~ 1000 sq. ft. / gal
Recommended Dry Film Thickness	3-4 Mils (75-100 Microns)
Touch Dry (25° C / 77°F)	2-3 Hours
Dry Hard (25° C/ 77°F)	6-8 Hours
Min. Interval Before Overcoating (77°F)	8 Hrs at 3-4 Mils DFT
Max. Interval Before Overcoating (77°F)	7 Days
Full Cure After	7 Days
Temperature Resistance (Dry)	250°F/121°C
Flash Point (TCC)	Base 99°F / (38°C) Hardener 108 F / 42°C

This product is a two component material with Part A(base plus VCI-Coating Agent 12) and curing agent (Part B) normally supplied in 1 gallon cans. Prepare for use by combining the 2 containers and thoroughly mixing.



**CONCRETE  
CLEANERS**

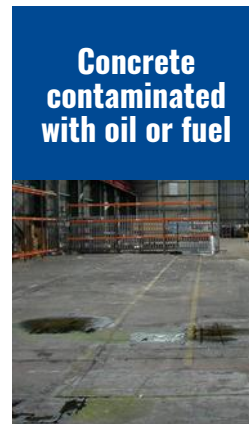
## Purge:

is a surface applied penetrating liquid concrete restoration material designed to dissolve and displace contaminants out of concrete. TPS III Purge is a chemically reactive material used for cleaning cement based concrete substrates prior to repairs as patching, cement overlay, painting or coating.



### WHEN TO USE

Use on contaminated cement-based substrates to clean and restore adhesive properties. Use on weakened concrete to increase strength and promote adhesion.



### BENEFITS

- Seals off moisture
- Compatible with coatings and other repair materials
- Simple to use
- Prevents future contamination
- Increases surface strength
- Removes surface contamination
- Conditions substrate for repair and overlay
- Promotes adhesion
- Help keep treated surfaces clean

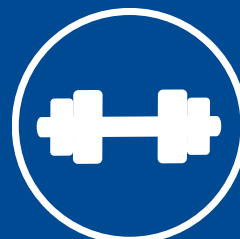
### EXPECTED PERFORMANCE



**REMOVES  
CONTAMINATES  
FROM CONCRETE**



**PURGES  
CHLORIDES  
FROM DEEP  
WITHIN**



**INCREASES  
SURFACE  
STRENGTH**



**COMPATIBLE  
WITH OTHER  
COATINGS**





# SURCOCLEAN

Penetrating Concrete Cleaner

## PRODUCT DESCRIPTION

SurCoClean is a highly effective non-acidic cleaner for all concrete and many masonry surfaces. SurCoClean can be successful in the removal of light to moderate soiling, biological fouling, most grease and oil deposits, rubber heel marks, some oxidation stains and certain other surface deposits. It is highly effective in cleaning of commercial tile and grout. SurCoClean is recommended for the removal of all form releases and powdered release agents on stamped concrete before sealing. This product should also be used to clean existing slabs before applying a penetrating or film forming treatment or sealer. SurCoClean is an excellent general purpose cleaner and can be used to clean most painted surfaces, vinyl and aluminum siding, decks.

## WHEN TO USE

All Purpose Cleaner	1-40 Parts Water to 1 Part Product
Pressure Washer	1-100 Parts Water to 1 Part Product
Concrete or Brick	1-5 Parts Water to 1 Part Product
Heavy Duty Degreaser	1-10 Parts Water to 1 Part Product

**Before/After Photo of Concrete Floor at Meat Processing Facility in Chicago, IL**





# SURTREAT BIO GREASE BUSTER

Concrete Bio Stimulating Degreaser

## PRODUCT DESCRIPTION

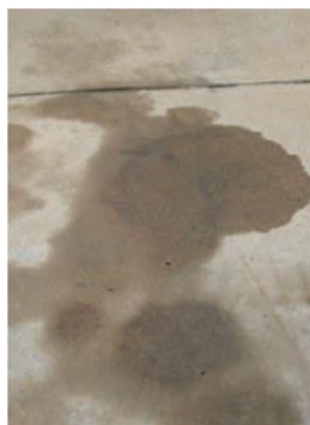
Surtreat Bio Grease Buster is an environmentally friendly, proprietary blend of bacterial spores, concentrated biodegradable surfactants and bio-stimulating agents. Surtreat Bio Grease Buster is fast acting and effective in the removal of accumulated grease, oil and other petroleum products from concrete and other porous surfaces including stone, tile and soil. Surtreat Bio Grease Buster is cost effective and shortens remediation time in the maintenance and restoration of petroleum-contaminated surfaces. Surtreat Bio Grease Buster contains no petroleum distillates or solvents.

Effluent from the cleaning process leaves behind a colony of harmless but beneficial bacteria that continues to consume sub-surface petroleum materials that rise to the cleaned surface. The same effluent that flows into drains or adjacent soil continues the bioremediation process. For extreme cases, additional top dressing of dilute Surtreat Bio Grease Buster will be beneficial. No removal or replacement of contaminated materials is necessary. Remediation of more than 90% of petroleum contamination occurs in most projects after 30 days. Remediation of 99.7% has been reported after 4 months.



### BEFORE

Before photo showing concrete driveway with large, deep oil stains



### AFTER

After photo of same area 2 days after application of Surtreat Bio Grease Buster on lower section of stain



## EXPECTED PERFORMANCE



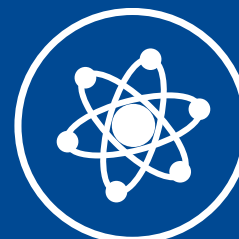
PROMOTES  
SURTREAT  
PRODUCTS  
ABSORBENCY



BIO AGENTS  
CLEAN DEEP IN  
THE PORES



WILL REMOVE  
HARD OIL AND  
PETROLEUM  
STAINS



NO NEED TO  
REMOVE  
CONTAMINATED  
MATERIAL



# PROTECTION SOLUTIONS

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**WATER PROOFERS**



**COATINGS AND  
WATER  
REPELLENTS**



**WATERPROOFERS**



# SURTREAT HYDROGUARD

Heavy Duty Powder Waterproofer

## PRODUCT DESCRIPTION

A Heavy-Duty, Portland cement-base, waterproofing coating for sealing, protecting & decorating walls and surfaces constructed of poured concrete, concrete/cinder block, masonry, stone, brick or stucco. Safe coating for sealing the inside of drinking water concrete tanks and cisterns. Easy to use; just add water (plus HydroGuard Bonding Additive for previously-painted or non-porous surfaces) and mix. Eliminates dampness; resists mold/mildew & flaking/chalking while sealing all pores & voids.

Unlike ready-mix paints which can only be applied to dry surfaces, this product is made for use on wet or dry surfaces. It withstands over 22 psi of hydrostatic pressure (equal to holding back a 48 foot high wall of water). Plus, it is breathable, so moisture does not get trapped behind the surface. It also reduces Radon Gas infiltration.



## WHEN TO USE

- Sealing and protecting walls and surfaces constructed of concrete block, cinder block, poured concrete, fieldstone, masonry, brick, or stucco.
- Waterproofing interior and exterior surfaces, above and below grade.
- Safe coating for sealing the inside of drinking water concrete tanks and cisterns.
- Eliminating dampness, mold/mildew, and flaking/chalking on basement and garage walls.
- Sealing retaining and sea walls to prevent water intrusion and erosion.
- Waterproofing bird baths, fountains, fish ponds, planters, and bare concrete swimming pools.
- Protecting foundations, both above and below grade.
- Sealing unventilated crawl spaces and cellars to prevent moisture buildup.
- Waterproofing concrete silos and tornado shelters.
- Reducing Radon Gas penetration.

## BENEFITS

- Safe for drinking water tanks and cisterns
- Resists mold and mildew
- Can be applied to wet and dry substrates
- Breathable
- Extremely durable
- With Bonding Additive can be applied on painted surfaces
- Reduces Radon Gas infiltration

## EXPECTED PERFORMANCE



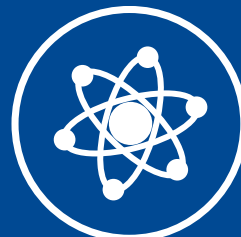
**ELIMINATES  
DAMPNESS**



**BREATHABLE**



**RESISTS  
FLAKING AND  
CHALKING**



**RESISTS MOLD  
AND MILDEW**



**SEALS PORES  
AND VOIDS**



# SURTREAT HYDROSEAL

Water Resistant Elastomeric, Non-Fibered Sealer

## PRODUCT DESCRIPTION

A single component 100% acrylic polymer, water-based coating, designed to produce a tough, water-resistant elastomeric coating. It cures to a bright white monolithic membrane with exceptional tensile strength, high reflectivity and excellent resistance to mildew or fungus growth. It saves energy as it reduces interior temperatures.

Makes substrate last longer as it will reduce the effects of thermal shock. With its excellent adhesion, apply over asphalt shingles, degreased or weathered aluminum, primed steel, galvanized steel and concrete as well as over cured asphalt coatings (weathered a minimum of 4 weeks), smooth surface roofing and modified bitumen roofing sheets.



## WHEN TO USE

- Tough, water-resistant elastomeric coating: single-component 100% acrylic polymer that is designed to produce a tough, water-resistant elastomeric coating that can withstand harsh weather conditions.
- Bright white monolithic membrane with exceptional tensile strength, high reflectivity, and resistance to mildew or fungus growth: Surtreat HydroSeal cures to a bright white monolithic membrane that will help keep your roof cool and dry. It has exceptional tensile strength, high reflectivity, and excellent resistance to mildew or fungus growth.
- Energy-efficient and reduces interior temperatures: Surtreat HydroSeal's high reflectivity helps to reduce heat absorption, which can help lower your energy bills and keep your home or building cooler. It saves energy as it reduces interior temperatures.
- Extends the life of your substrate: Surtreat HydroSeal can reduce the effects of thermal shock, which can help to extend the life of your substrate. It makes substrates last longer as it will reduce the effects of thermal shock.
- Excellent adhesion over a variety of surfaces: Surtreat HydroSeal can be applied over asphalt shingles, degreased or weathered aluminum, primed steel, galvanized steel, and concrete, as well as over cured asphalt coatings (weathered a minimum of 4 weeks), smooth surfaces, and modified bitumen sheets. With its excellent adhesion, apply over a variety of surfaces.

## BENEFITS

- Resists cracking
- Highly reflective
- Simple to use
- Resists thermal shock damage
- Non-toxic
- 100% pure acrylic waterproofer
- Ready to use
- Non-fibered

## EXPECTED PERFORMANCE



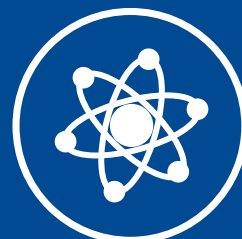
**STOPS WATER  
PERMEATION**



**WILL NOT  
SHRINK**



**ELASTIC**



**FORMS A  
RUBBER LIKE  
MEMBRANE**



**HIGHLY  
REFLECTIVE**



## **COATINGS AND WATER REPELLENTS**



# SURTREAT SURCOAT

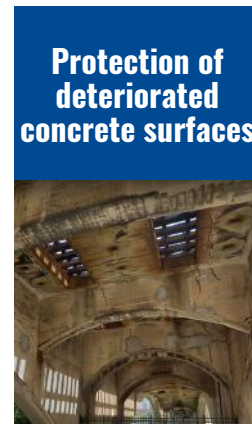
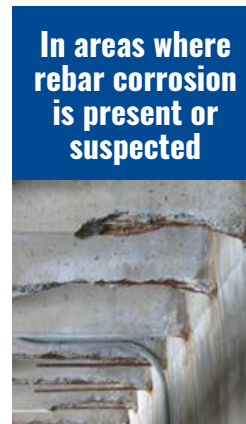
Polymer Modified Portland Cement Coating

**SURCOAT:** is a polymer-modified Portland cement based coating for application over concrete surfaces to provide a water resistant exterior surface. It is troweled brushed or sprayed on at a thickness of 1/8 to 1/4 inch. Volatile corrosion inhibitor added to the SurCoat functions to inhibit and prevent corrosion of the embedded reinforcement on structures new or old.



## WHEN TO USE

For use on cement based substrates vertical or overhead.  
Not for use as a traffic membrane.



## BENEFITS

- Outstanding protection against moisture
- 30-year proven performance of the corrosion inhibitor component
- Proven laboratory and site performance
- Simple to use
- Can be applied to a variety of reinforced concrete surfaces
- Environmentally friendly
- Breathable & Extremely durable
- Uniform concrete color

## EXPECTED PERFORMANCE



**EXTREMELY  
DURABLE, LONG  
LASTING FINISH**



**CAN BE APPLIED  
TO VARIETY OF  
SURFACE TYPES**



**30 YEAR PROVEN  
PERFORMANCE OF  
INHIBITOR  
COMPONENT**



## SURCOSHIELD:

is a multifunctional, single application, surface applied product that penetrates the surface of cementitious materials to seal porosity, repel water, and increase surface strength.



## WHEN TO USE

For use on porous architectural substrates. Can be used for preservation/protection against mold/mildew and other botanical growth.

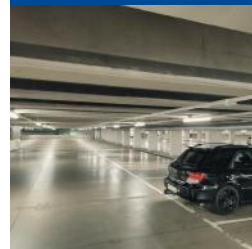
**Concrete substrates that need strengthening**



**Concrete substrates that need to be preserved**



**Concrete that needs to be kept clean**



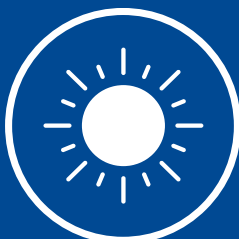
## BENEFITS

- Keeps treated surfaces clean
- Penetrating formula
- Durable - will not discolor or be degraded by UV light.
- Provides for water repellant surface appearance
- Can be used on any stone, brick or cement bonded surface material such as building walls, roof tiles, pavers, sidewalks and pool decks.
- Easy to apply - surface application method
- Environmentally friendly, water based formulation

## EXPECTED PERFORMANCE



**FORMULA  
PENETRATES  
INTO SUBSTRATE**



**WILL NOT DISCOLOR  
OR BE DEGRADED  
BY UV LIGHT**



**ENVIRONMENTALLY  
FRIENDLY, WATER  
BASED  
FORMULATION**





# SURTREAT REPEL WB

Penetrating Water Repellent Concrete Sealer

**REPEL WB:** is a ready to use stabilized water dispersion of advanced silanes/siloxanes designed to provide complete protection against water intrusion. **Repel WB** provides outstanding water repellency, penetrates easily, is UV resistant and can not be peeled or scratched off of the applied surface.



## WHEN TO USE

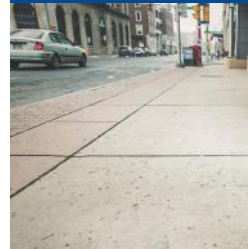
For use on clean porous substrates to seal off moisture.

Repel WB is recommended for use on horizontal and vertical surfaces

Stone, brick or  
cement bonded  
surface material



Roof tiles,  
pavers, and  
sidewalks



Concrete  
structures  
vulnerable to  
water damages



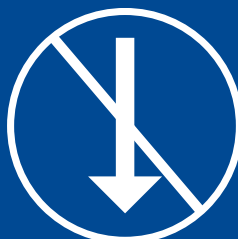
## BENEFITS

- Keeps treated surfaces clean
- Penetrating & durable, will not discolor or be degraded by UV light.
- Provides for water repellent surface appearance
- Seals off moisture
- Easy to apply
- Environmentally friendly, water based formulation
- Inhibits chloride penetration
- Produces clean water repellent appearance
- Tested to last more than 10 years in field applications.

## EXPECTED PERFORMANCE



**CREATES A WATER  
REPELLENT  
SURFACE**



**INHIBITS  
CHLORIDE  
PENETRATION**



**RESULTS OF  
APPLICATION LAST  
10+ YEARS**



# SURTREAT REPEL SB OL

Water, oil and stain repellent

## REPEL SB OL:

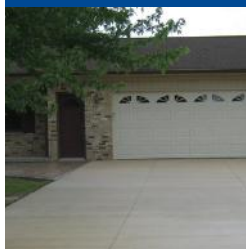
Surtreat Repel SB OL is a solvent solution of a very effective reactive water repellent combined with a durable fluorocarbon oils and stain repellent.



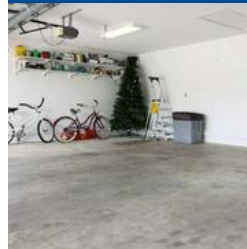
### WHEN TO USE

For use on clean porous substrates to prevent the intrusion of petroleum based and food grade oils and stains.

#### Exterior Concrete and masonry



#### Interior concrete and masonry



#### Decorative and stone surfaces



### BENEFITS

- Keeps treated surfaces clean
- Penetrating & durable, will not discolor or be degraded by UV light.
- Formulated with VOC exempt materials
- Works for any type of porous surface like; masonry, stone, concrete, marble, etc.
- Easy to apply
- Environmentally friendly, water based formulation
- Inhibits petroleum and food base oils and grease.
- Produces clean water repellent appearance
- Penetrates substrates and is invisible

### EXPECTED PERFORMANCE



CLEAR COATING



BLOCKS  
ABSORPTION OF  
OILS AND GREASE



EXTENDS THE LIFE  
OF THE SUBSTRATE

# STRENGTHENING SOLUTIONS

---



**BONDING AGENTS**



**CONCRETE  
STRENGTHENERS**



**FRP  
STRENGTHENING**



**BONDING AGENTS**

**SURCOPRIMER:** a system used as an underlayment for concrete repairs, sealants, coatings, and FRP. This primer fixes underlying issues that can cause concrete repair systems to fail, such as corrosion and weak substrates.



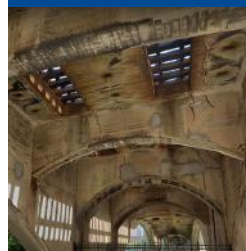
### WHEN TO USE

Prior to the installation of fiber reinforced polymers (FRP), coatings, paints, overlays, waterproofing membranes, etc.

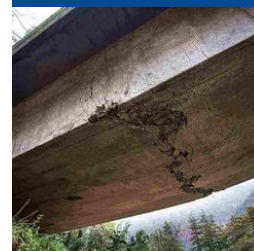
**Steel reinforced substrates with signs of rebar corrosion**



**Signs of chloride induced corrosion**



**Weak or structurally compromised concrete**



### BENEFITS

- SurCoPrimer is a corrosion inhibitor that penetrates the weak and contaminated concrete substrates to increase adhesion and concrete strength.
- Elevate and buffer the pH
- Increase tensile and compressive strength
- Reduce permeability
- Remove/pacify water-soluble chlorides
- Create a non-corrosive environment for the embedded steel

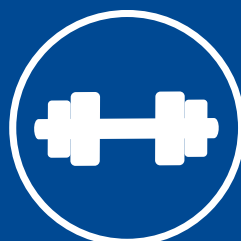
### EXPECTED PERFORMANCE



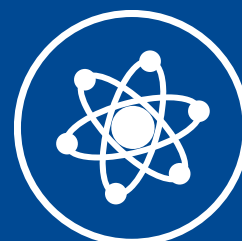
**PROVIDES REHAB TO SUBSTRATE PRIOR TO FRP**



**REDUCE WATER PERMEABILITY**



**INCREASE IN CONCRETE STRENGTH**



**CREATES NON CORROSIVE ENVIRONMENT**





# SURTREAT HYDROGUARD

Waterproofing Bonding Additive

## PRODUCT DESCRIPTION

A high-solid, water-resistant, acrylic resin designed as an admixture for thin Portland cement coatings, concrete repair/resurface powder mixes, thin set mortar, tile grout, plaster and stucco. It improves the adhesion, durability and resistance to chemicals & acid by reducing the surface permeability.

Excellent additive to Surtreat HydroGuard Powder Waterproofing, thin-set cements, grouts and packaged concrete mixes. Ideal to improve the adhesion of coatings over smooth non-porous surfaces, like poured concrete, glazed tile and sandstone. Prevents separation and cracking; increases cohesion, tensile, compressive and flexural strength. Will not yellow or discolor the coating. Use for interior/exterior, above/below grade projects.



## WHEN TO USE

- Use with Surtreat HydroGuard Waterproofing Powder
- Add to patch, grout and resurface mixes

## BENEFITS

- Increases adhesion
- Increases strength
- Provides longer lasting repair
- Will not yellow or discolor

## EXPECTED PERFORMANCE



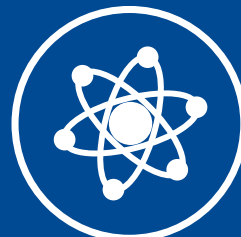
**REDUCED  
SURFACE  
PERMEABILITY**



**INCREASES  
ADHESION**



**INCREASES  
STRENGTH**



**INCREASES  
DURABILITY  
TO ACID**



**IMPROVE  
REPAIR BOND**



# **CONCRETE STRENGTHENERS**



### TPS IV:

a hardener and surface protection agent for porous cement based surfaces. **TPS IV** is a penetrating material. It is designed to combine with the substrate without leaving film or residue.



### WHEN TO USE

Use for added surface strength, hardness, surface wearability in areas of heavy vehicular traffic or impact – loading docks, etc.

**Surfaces with heavy traffic from vehicles**



**Surfaces that receive high impact**



**Weak or structurally deficient concrete**



### BENEFITS

- Provides concrete protection for new and existing structures
- Proven laboratory and site performance
- Simple to use
- Can be applied to a variety of surfaces
- Environmentally friendly
- Breathable
- Extremely durable
- Penetrates easily
- Can not be peeled or scratched off
- Can be painted, coated, or overlaid as needed

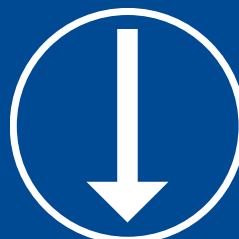
### EXPECTED PERFORMANCE



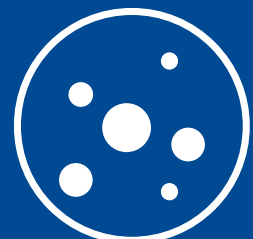
**CAN BE UTILIZED ON NEW AND OLD STRUCTURES**



**INCREASES STRENGTH OF CONCRETE**



**PENETRATES DEEP WITHIN THE CONCRETE**



**REDUCES POROSITY OF THE CONCRETE**



# **FRP STRENGTHENING**

### Description

The Dymat®DCH-190 Composite is comprised of Dymat® Epoxy and Dymat®DCH-190. Reinforcing fabric, which is NSF-Certified. Dymat®DCH-190 is a custom fabric orientated in the 0° direction. The Dymat®DCH Epoxy is a two-component epoxy matrix.

### Use

Dymat® DCH-190 Fabric is combined with Dymat®DCH Epoxy to add strength to bridges, buildings and other structures.

### ADVANTAGES

- ICC-ES ESR-2103 listed product
- NSF/ANSI Standard 61 listed product for Drinking water systems
- Improved long-term durability
- Good high & low temperature properties
- Long working time
- High tensile modulus and strength
- Ambient cure
- 100% solvent-free
- Rolls can be cut to desired widths prior to shipping

### COVERAGE

Approximately 600 sq. ft. surface area with 3 to 4 units of Dymat®DCH Epoxy and 1 roll of Dymat®DCH-190 Fabric when used with the Dymat®DCH-190 Saturator.

### PACKAGING

Order Dymat®DCH Epoxy in 55-gallon (208L) drums or pre-measured units in 5-gallon (19L) containers. Dymat®DCH-190 Fabric typically shipped in 2 rolls of 24" X 300 lineal foot (0.6m X 91.4m) rolls. Typically ships in 12" X 13" X 64" (303mm X 330mm X 1626mm) boxes.

### EPOXY MIX RATIO

2.96 Gallons Component A & 1.04 Gallons Component B by volume in total of 4 Gallons (28.7 Component A & 08.22

Component B by weight.)

### SHELF LIFE

Epoxy – two years in original, unopened and properly stored containers.

Fabric – ten years in proper storage conditions.

### STORAGE CONDITIONS

Store epoxy at 40° to 90° F (4° to 32° C). Avoid freezing. Store rolls flat, not on ends, at temperatures below 100° (38° C).

Avoid moisture and water contamination.

### CERTIFICATE OF COMPLIANCE

- Will be supplied upon request, complete with state and federal packaging laws with copy of labels used.
- Material safety data sheets will be supplied upon request.
- Possesses 0% V.O.C. level.

### TYPICAL DRY FIBER PROPERTIES

PROPERTY	TYPICAL TEST VALUE
Tensile Strength	700.0 ksi (4.83 GPa)
Tensile Mo	40.6 psi (280.0 GPa)
Ultimate Elongation	1.65%
Density	1.01oz/in. <sup>3</sup> / 1.75g/cm <sup>3</sup>
Weight per sq. yd.	19 oz/yd <sup>2</sup> / 644 g/m <sup>2</sup>

### COMPOSITE GROSS LAMINATE PROPERTIES

PROPERTY	ASTM METHOD	TYPICAL TEST VALUE	DESIGN VALUE*
Ultimate Tensile Strength in Primary Fiber Direction	D3039	200,000psi (705MPa)	170,000 psi (599 MPa) (4.8 kip/in. width)
Elongation at Break	D3039	1.28%	1.09%
Tensile Modulus	D3039	15.0X10 <sup>6</sup> psi (70.1 GPa)	12.75X10 <sup>6</sup> psi (59.6 GPa)
Longitudinal Coefficient of Thermal Expansion	D696	3.6 ppm./°F	
Coefficient of Thermal Expansion	D696	20.3 ppm./°F	
Nominal Laminate Thickness		0.026 in (0.92mm)	0.036in.(0.92mm)

\*Gross laminate design properties based on ACI 440 suggested guidelines will vary slightly. Contact Dymat Construction Products to confirm project specification values and design methodology.

### EPOXY MATERIAL PROPERTIES

Curing Schedule 72 hours post cure at 140° F (60° C)

Property:	ASTM Method	Typical Test Value
Tg	D4065	180°F (82°C)
Tensile Strength <sup>1</sup>	D638 Type 1	10,500 psi (72.4 MPa)
Tensile Modulus	D638 Type 1	461,000 psi (3.18 GPa)
Elongation Percent	D638 Type 1	5.0%
Flexural Strength	D790	17,900 psi (123.4 MPa)
Flexural Modulus	D790	452,000 psi (3.12 GPa)

Testing Temp. 70°F (21°C) Crosshead speed 0.5 in. (13mm)/mm.  
Grips Instron 2716-0055 -30kips



### Description

The Dymat®DHE-272 Composite is an AC125 listed material comprised of Dymat® Epoxy and Dymat®D Epoxy and reinforcing fabric. Dymat®DHE-272 is a custom weave unidirectional glass fabric used in the Dymat®Fiber Wrap System. The glass material is orientated in the 0° direction with additional glass cross fibers at 90°. The Dymat®D material is a two component epoxy matrix material.

### Use

Dymat®DHE-272 Fabric is combined with Dymat®D epoxy material to add strength to bridges, buildings and other structures.

### ADVANTAGES

- ICC-ES ESR-2103 listed product
- NSF/ANSI Standard 61 listed product for Drinking water systems
- Improved long-term durability
- Good high & low temperature properties
- Long working time
- High tensile modulus and strength
- Ambient cure
- 100% solvent-free
- Rolls can be cut to desired widths prior to shipping

### COVERAGE

Approximately 338 sq. ft. surface area with 3 to 4 units of Dymat®D Epoxy and 1 roll of Dymat®DHE-272 Fabric when used with the Dymat® Saturator.

### PACKAGING

Dymat®D Epoxy in 55-gallon (208L) drums or pre-measured units in 5-gallon (19L) containers. Order Dymat®DHE-272 Fabric in 24" X 169 lineal foot (0.61m X 81.2) rolls. Typically ships in 12" X 13" X 64" (303mm X 330mm X 1626mm) boxes. 338 sq. feet (31.41 sq. meters per roll).

### EPOXY MIX RATIO

2.96 Gallons Component A & 1.04 Gallons Component B by volume in total of 4 Gallons (28.7 lbs. Component A & 8.22 lbs. Component B by weight.)

### SHELF LIFE

Epoxy – two years in original, unopened and properly stored containers.  
Fabric – ten years in proper storage conditions.

### STORAGE CONDITIONS

Store epoxy at 40° to 90° F (4° to 32° C). Avoid freezing. Store rolls flat, not on ends, at temperatures below 100° (38° C). Avoid moisture and water contamination.

### Certificate of Compliance

- Will be supplied upon request, complete with state and federal packaging laws with copy of labels used.
- Material safety data sheet will be supplied upon request.
- Possesses 0% V.O.C. Level

### How to use the Dymat® DHE-272 Fiber Wrap System Design

The Dymat® Fiber Wrap System shall be designed to meet specific design criteria. The criteria for each project are dictated by the engineer of record and any relevant building codes and/or guidelines. The design should be based on the allowable strain for each type of application and the design modulus of the material.

### TYPICAL DRY FIBER PROPERTIES

PROPERTY	TYPICAL TEST VALUE
Tensile Strength	700,000 psi (4.86 GPa)
Tensile Mo	40.6 X 10 <sup>6</sup> psi (280.0 GPa)
Ultimate Elongation	1.65%
Density	0.063 lbs./in. <sup>3</sup> (1.74g/cm <sup>3</sup> )
Weight per sq. yd.	19 oz. (644 g/m <sup>2</sup> )

### COMPOSITE GROSS LAMINATE PROPERTIES

PROPERTY	ASTM METHOD	TYPICAL TEST VALUE	DESIGN VALUE*
Ultimate Tensile Strength in Primary Fiber Direction	D3039	83,400 psi (575MPa) (4.7 kip/in. width)	66,720 psi (460 MPa) (3.3 kip/in. width)
Elongation at Break	D3039	2.2%	1.76%
Tensile Modulus	D3039	3.79 x 10 <sup>6</sup> psi (26.1 GPa)	3.03 X 10 <sup>6</sup> psi (20.9 GPa)
Ultimate tensile strength 90 degrees to primary fiber psi	D-3039	3,750 psi (25.8 MPa)	3,000 psi (20.7 GPa)
Nominal Laminate Thickness		0.05 in (1.3mm)	0.05 in. (1.3mm)

Gross laminate design properties based on AC1 440 suggested guidelines will vary slightly. Contact Dymat® engineers to confirm project specification values and design methodology.

### EPOXY MATERIAL PROPERTIES

Curing Schedule 72 hours post cure at 140° F (60° C)

Property:	ASTM Method	Typical Test Value
Tg	D4065	180°F (82°C)
Tensile Strength <sup>1</sup>	D638 Type 1	10,500 psi (72.4 MPa)
Tensile Modulus	D638 Type 1	461,000 psi (3.18 GPa)
Elongation Percent	D638 Type 1	5.0%
Flexural Strength	D790	17,900 psi (123.4 MPa)
Flexural Modulus	D790	452,000 psi (3.12 GPa)

Testing Temp. 70°F (21°C) Crosshead speed 0.5 in. (13mm)/mm. Grips Instron 2716-0055 -30kips

### DESCRIPTION

The Dymat® Anchors are comprised of Dymat® D Epoxy Resin and Dymat® Anchors glass carbon fiber reinforced rovings. Dymat® Anchors is a custom, uni-directional glass roving for improved end details and force transfer. The Dymat® Anchors are of two main types.

### USE OF Dymat® Anchors

### ADVANTAGES

- Durability
- Good high & low temperature properties
- Long working time
- High tensile modulus and strength
- Ambient cure
- 100% solvent-free

### PACKAGING

Packaged in lots of 50 anchors or less as required. Weight will vary based on anchor design requirements.

### EPOXY MIX RATIO

100.0 component A to 35.1 component B by volume. (100 component A to 28.6 component B by weight.)

### SHELF LIFE

Epoxy - three years in original, unopened and properly stored containers.  
Fabric - ten years in proper storage conditions.

### STORAGE CONDITIONS

Store epoxy at 40° to 90° F (4° to 32° C). Avoid freezing. Store rolls flat, not on ends, at temperatures below 100° F (38° C). Avoid moisture and water contamination.

### CERTIFICATE OF COMPLIANCE

- Will be supplied upon request, complete with state and federal packaging laws with copy of labels used.
- Material safety data sheets will be supplied upon request.
- Possesses 0% V.O.C. level.

### TYPICAL DRY FIBER PROPERTIES

Tensile Strength	470,000 psi (3.24 GPa)
Tensile Modulus	10.5 x 10 <sup>6</sup> psi (72.4 GPa)
Ultimate Elongation	4.5%

### GLASS ANCHORS COMPOSITE GROSS LAMINATE PROPERTIES

PROPERTY	ASTM METHOD	TYPICAL TEST VALUE	DESIGN VALUE*
Ultimate tensile strength in primary fiber direction, psi	D-3039	83,400 psi (575 MPa) (4.17 kip/in. width)	66,720 psi (460 MPa) (3.3 kip/in. width)
Elongation at break	D-3039	2.2%	1.76%
Tensile Modulus, psi	D-3039	3.79 x 10 <sup>6</sup> psi (26.1 GPa)	3.03 x 10 <sup>6</sup> psi (20.9 GPa)

\* Design and specification values will vary based on individual project requirements and required area of composite anchor. Standard anchor diameters are 1/4", 1/2" and 3/4", however, individual project designs will govern the required area.

### EPOXY MATERIAL PROPERTIES

Curing Schedule 72 hours post cure at 140° F (60° C).

PROPERTY	ASTM METHOD	TYPICAL TEST VALUE*
T <sub>g</sub>	D-4065	180° F (82° C)
Tensile Strength*, psi	D-638 Type 1	10,500 psi (72.4 MPa)
Tensile Modulus, psi	D-638 Type 1	461,000 psi (3.18 GPa)
Elongation Percent	D-638 Type 1	5.0%
Flexural Strength, psi	D-790	17,900 psi (123.4 MPa)
Flexural Modulus, psi	D-790	452,000 psi (3.12 GPa)

Testing temperature 70 F (21 C) Crosshead speed: 0.5 in. (13mm)/min. Grips Instron 2716-0055 - 30 kips

\* Specification values can be provided upon request

### Actual Test Results on a Connector Anchor Carbon Anchor 0.75 inch diameter and 66 inches long

Test Tensile Strength:     psi  
Test Elongation:             %



# DYMAT DCB COMPOSITE

Bi-Directional Glass Fiber Reinforced Polymer

## DESCRIPTION

The Dymat® DCB Composite is a listed material comprised of Dymat® D Epoxy and Dymat® DCB reinforcing fabric. Dymat® DCB is a custom, bi-directional fabric used in the Dymat® System. The primary fibers are continuous E-glass orientated in the  $\pm 45^\circ$  directions. The Dymat® D Epoxy is a two-component epoxy matrix material.

## USE

Dymat® DCB Fabric is combined with Dymat® D epoxy to provide connections and add strength and ductility to bridges, buildings, and other structures.

## ADVANTAGES

- Good high & low temperature properties
- Long working time
- High elongation
- Ambient cure
- 100% solvent-free
- Rolls can be cut to desired widths prior to shipping

## COVERAGE

Approximately 1,750 sq. ft. surface area with 8 to 9 units of Dymat® D Epoxy and 1 roll of Dymat® DCB Fabric when used with the Dymat® Saturator.

## PACKAGING

Order Dymat® D Epoxy in 55-gallon (208L) drums or pre-measured units in 5-gallon (19L) containers. Order Dymat® DCB Fabric in 50" x 420 lineal foot (1.3m x 128m) rolls. Typically ships in 12" x 13" x 54" (305mm x 330mm x 1371.6mm) boxes.

## EPOXY MIX RATIO

100:0 component A to component B by volume. ( 100 component A to component B by weight.)

## SHELF LIFE

Epoxy - two years in original, unopened and properly stored containers.

Fabric - ten years in proper storage conditions.

## STORAGE CONDITIONS

Store epoxy at 40° to 90° F (4° to 32° C) Avoid freezing. Store rolls flat, not on ends, at temperatures below 100° F (38° C). Avoid moisture and water contamination.

## CERTIFICATE OF COMPLIANCE

- Will be supplied upon request, complete with state and federal packaging laws with copy of labels used.
- Material safety data sheets will be supplied upon request.
- Possesses 0% V.O.C. level.

## TYPICAL DRY FIBER PROPERTIES

Tensile Strength	470,000 psi (3.24 GPa)
Tensile Modulus	10.5 x 10 <sup>6</sup> psi (72.4 GPa)
Ultimate Elongation	4.5%
Density	0.092 lbs./in. <sup>3</sup> (2.55 g/cm <sup>3</sup> )
Weight per sq. yd.	24 oz. (813 g/m <sup>2</sup> )

## COMPOSITE GROSS LAMINATE PROPERTIES

PROPERTY	ASTM METHOD	TYPICAL TEST VALUE	DESIGN VALUE*
Ultimate tensile strength in p System, er direction, psi	D-3039	40,500 psi (279 MPa) (1.37 kip/in. width)	32,400 psi (460 MPa) (1.1 kip/in. width)
Elongation at break	D-3039	1.5%	1.2%
Tensile Modulus, psi	D-3039	2.7 x 10 <sup>6</sup> psi (18.6 GPa)	2.16 x 10 <sup>6</sup> psi (14.9 GPa)
Ultimate tensile strength 90 degrees to primary fiber, psi	D-3039	40,500 psi (279 MPa) (1.37 kip/in. width)	32,400 psi (460 MPa) (1.1 kip/in. width)
Laminate Thickness		0.034 in. (0.864 mm)	0.034 in. (0.864 mm)

\* Gross laminate design properties based on ACI 440 suggested guidelines will vary slightly. Contact Dymat® engineers to confirm project specification values and design methodology.

## EPOXY MATERIAL PROPERTIES

Curing Schedule 72 hours post cure at 140° F (60° C).		
PROPERTY	ASTM METHOD	TYPICAL TEST VALUE*
T <sub>g</sub>	D-4065	180° F (82° C)
Tensile Strength <sup>1</sup> , psi	D-638 Type 1	10,500 psi (72.4 MPa)
Tensile Modulus, psi	D-638 Type 1	461,000 psi (3.18 GPa)
Elongation Percent	D-638 Type 1	5.0%
Flexural Strength, psi	D-790	17,900 psi (123.4 MPa)
Flexural Modulus, psi	D-790	452,000 psi (3.12 GPa)

<sup>1</sup> Testing temperature: 70° F (21° C) Crosshead speed: 0.5 in. (13mm)/min. Grips Instron 2716-0055 - 30 kips  
\* Specification values can be provided upon request.

## HOW TO USE THE Dymat® DCB COMPOSITE SYSTEM

### DESIGN

The Dymat® DCB System shall be designed to meet specific design criteria. The criteria

for each project is dictated by the engineer of record and any relevant building codes and/or guidelines. The design should be based on the allowable strain for each type of application and the design modulus of the material.



**STAY CONNECTED  
WITH SURTREAT!**



**[WWW.SURTREAT.COM](http://WWW.SURTREAT.COM)**