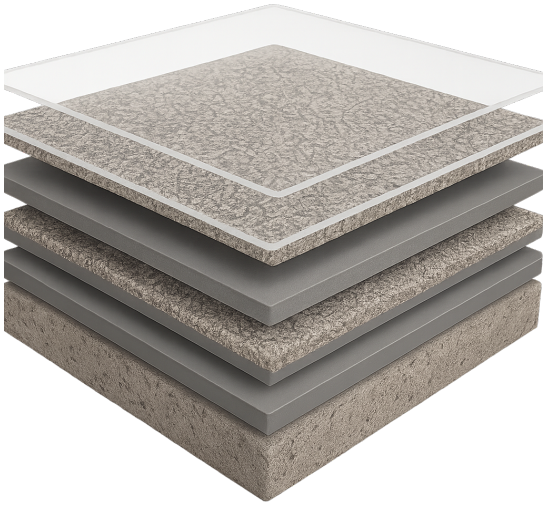
SYSTEM DATA SHEET

System Name | HEAVY DUTY – Quartz System



Overview:

The HEAVY DUTY – Quartz System is a slip-resistant, high-strength broadcast system engineered to endure the most demanding industrial and commercial conditions. By incorporating a primer coat and an extra layer of clear polyaspartic topcoat, this system provides enhanced protection against wear, impact, and chemical exposure while maintaining the hygienic and decorative qualities of a quartz floor.

Built on an epoxy primer for superior adhesion, the system includes two UV-stable grout coats, with full quartz sand broadcast to rejection, and two clear protective topcoats. This creates a seamless, highly durable surface that resists abrasion, provides slip resistance, and offers long-term color stability even under heavy loads and traffic.

The HEAVY DUTY – Quartz System is ideally suited for manufacturing plants, commercial kitchens, restrooms, pool decks, locker rooms, and food processing facilities where safety, durability, and hygiene are non-negotiable.

Features & Benefits:

- Meets USDA, FDA, EPA, and SCAQMD Standards
- Adhesion to Concrete, Wood, Metal, Non-glazed Tiles
- Antibacterial
- Extreme Temperature Resistance, 0–200°F
- Low odor & low VOCs
- Easily workable (flow & leveling)
- Proper film build for enhanced performance & longevity
- Gloss & glass finish
- High UV Resistance
- Low maintenance
- Scratch Resistance
- Used for interior & exterior applications
- Used for industrial, commercial, & residential applications
- Micro-media agents can be introduced as traction additives

Applications / Markets: *(grip additive required)*

- Patios & walkways
- Pool decks
- Residential
- Industrial /Commercial / Retail
- Healthcare
- Education
- Sports / Recreation Room
- Food & Beverage
- Grow Rooms

System Layers:

HEAVY DUTY – Quartz System	
Primer	Epoxy-MVB
Basecoat	Option 1: Poly85-EXTRASLOW-Colorant Option 2: Poly85-SLOWER-Colorant
Quartz Aggregate	Choice of Quartz
Interlayer	Option 1: Poly85-EXTRASLOW-Colorant Option 2: Poly85-SLOWER-Colorant
Quartz Aggregate	Choice of Quartz
First Topcoat	Poly85-Topcoat
Second Topcoat	Poly85-Topcoat

**When applying subsequent coatings without aggregate, mechanical surface abrasion is required to ensure proper inter-coat adhesion.*
***Recommend adding micro-media agents to ensure desired traction & safety*

System Performance (when cured):

PERFORMANCE	TEST METHOD	TYPICAL VALUES
Compressive Strength	ASTMC 695	12,000 PSI
Permeability (VBE ONLY)	ASTME 96	0.059 PERMS (grains h-1 ft-2 in Hg-1)
Water Absorption	ASTMD 570	< .1%
Impact Resistance	ASTMD 2794	> 160
Adhesion Pull-Off	ASTMD-4541	+500 PSI concrete fracture
Elongation / Tensile	ASTMD 638	2500 psi
Flexibility 1/4" cylindrical mandrel	ASTMD 522l	Pass
Hardness / Shore D	ASTMD 2240	92
Taber Abrasion	ASTMD 4060	16 mg loss (HDC 100)
Coefficient of Friction	ASTMD-2047	>0.6 / pass

Chemical & Stain Resistance:

- **(1) ONE** | Best for chemical resistance: Chemical has no adverse effects on fully cured coating; remove within 24 hours.
- **(2) TWO** | Low potential for stain: Chemical has no adverse effects on fully cured coating if removed within 24 hours.
- **(3) THREE** | High potential for stain or degradation: Chemical must be removed within 24 hours of exposure.
- **NR** | Not recommended

CHEMICAL	RATING
Acetic Acid (Component of Vinegar), 10%	1
Acetic Acid, 30%	2
Acetone	1

Ammonia, 30%	1
Ammonium Hydroxide, 30%	1
Antifreeze (Coolant)	1
Benzene (Component of Crude Oil)	1
Benzyl Alcohol	1
Betadine, 11%	1
Boric Acid, 4%	1
Brake Fluid, DOT 3	1
Chromic Acid, 10%	1
Chromic Acid, 30%	1
Citric Acid, 30%	1
Ethanol, 95%	1
Ethyl Acetate, 99% (Food/Beverage Facility)	1
Formaldehyde, 37%	3
Premium Gasoline	1
Hydraulic Fluids (Machinery, Automobile, Aviation)	2
Hydrochloric Acid, 10%	1
Hydrochloric Acid, 30%	3
Hydrofluoric Acid, 10%	1
Hydrofluoric Acid, 30%	3
Hydrogen Peroxide, 10%	1
Hydrogen Peroxide, 50%	1
Iodine, 2%	3
Isopropyl Alcohol	2
Jet Fuel	1
Lactic Acid, 30% (Dairy Facility)	3
Lime Juice	1
Magnesium Hydroxide	1
MEK (Methyl Ethyl Ketone)	1
Methanol	1
Methylene Chloride	NR

MIBK (Methyl Isobutyl Ketone)	1
Mineral Oil	1
Motor Oil, SAE 30	1
Mineral Spirits	1
Mustard, Yellow	1
Nitric Acid, 30%	NR
Oleic Acid	1
Oxalic Acid, 10%	1
Phosphoric Acid, 20%	2
Potassium Hydroxide, 30% (Alkaline Batteries, Soap Manufacturing)	1
Propylene Glycol	1
Silver Nitrate, 20% (Photo Labs)	3
Hydraulic Fluid (Aviation), Skydrol LD-4	2
Sodium Chloride, 20%	1
Sodium Hydroxide (Caustic Soda), 50%	1
Sodium Hypochlorite (Bleach), 10%	1
Sodium Hypochlorite (Bleach), 30%	2
Sodium Persulfate (Bleaching and Oxidizing Agent)	3
Sulfuric Acid, 37% (Battery Acid)	2
Tannic Acid, 20%	3
Tartaric Acid, 10%	1
Transmission Fluid	1
Urine, Dog or Cat	1
Urea (Nitrogen-Rich Fertilizer)	1
Vinegar, Distilled	1
Water (Hard Water from Well)	1
Whisky	1
Wine, Cabernet Sauvignon	1
Xylene	1

Surface Preparation:

Grind concrete to a 2 or 3 CSP (3 CSP Preferred). Vacuum and clean all concrete dust & debris. It is imperative to ensure concrete has a proper grind and is completely clean & dry before moving on to application. Contaminates, moisture, materials, or particles may hinder material's adhesion to the substrate. Different projects may require a different concrete surface profile. Adhere to International Concrete Repair Institute current standards.

Moisture in Concrete:

Concrete slabs should be tested prior to application for elevated moisture vapor emission levels. It is recommended to use ASTM F2170-19 standard for determining relative humidity in concrete slabs using RH probes. For slabs exhibiting elevated moisture levels in excess of 75% RH, Coatary's Moisture Vapor Barrier Epoxy (Fast or Slow) should be substituted as a primer.

De-Greasing of Contaminated Substrates:

For concrete substrates containing oil, animal fats, or other carbon based contaminants, slabs should be de-greased appropriately using an enzymatic based concrete de-greasing agent. Multiple applications may be required depending on the level of contamination

Treatment of Joins & Cracks:

Prior to installation of any Coatary products, all joints, cracks and other substrate irregularities must be addressed.

Maintenance:

The long-term performance, appearance, and life expectancy of wear surface products are dependent on an adequate routine maintenance program designed specifically for the installed wear surface. Resinous floor coating systems are nonporous, causing dirt and contaminants to remain on the surface. Recommended maintenance programs consist of frequent and thorough cleaning utilizing a neutral PH cleaner. The frequency of washing will vary depending on floor usage type, traffic and age.

Limitations:

- Do not apply over concrete experiencing ASR (Alkali-Silica Reaction)
- Do not apply over Acrylics or MMA (Methyl Methacrylate) Coatings
- Do not apply over existing coatings / sealers that have not been properly abraded and cleaned.
- Do not apply to new slabs < 28-days old
- Do not apply over areas wiped with denatured alcohols
- Do not apply to concrete < 3500 PSI compression strength
- Do not apply product when ambient or room temperature is below 32ºF (0ºC) or over 90ºF(32.2ºC) or if the relative ambient humidity is above 85%.
- This product is not recommended for immersion service.
- DEW POINT: Do not apply when dew point is within 5ºF of the ambient temperature.

Precautions:

- A prime coat may be required if outgassing is suspected or prevalent, if concrete is very porous / in poor condition, or if stem walls are highly absorbent. All concrete repairs must be completed before installing any system.
- DO NOT apply single coat greater than 14 mils thick (~100 square feet per gallon).
- DO NOT let material puddle on floor. This may cause a white color, a solid color, or color variations to appear when coating cures. Coating at different thicknesses can also cause similar outcomes.
- For best results, apply when application temperatures and relative humidity are low. Material cures faster as temperature and humidity increase and cures slower as they decrease. If application temperatures exceed those recommended, contact your Technical Representative.
- Apply material when temperature is decreasing—adhere to the Dew Point Calculation Chart available at Coatary.com. DO NOT apply under direct sunlight. DO NOT install under inclement weather conditions.
- Mock-ups and field test areas are strongly recommended to validate performance and appearance related characteristics (including but not limited to color, inherent surface variations, wear, anti-dusting, abrasion resistance, chemical resistance, stain resistance, coefficient of friction, etc.) to ensure system performance as specified for the intended use, and to determine approval of the coating system.
- Coverage & cure rates are for estimating purposes only. Factors including but not limited to type substrate condition, unusual/abnormal substrate conditions, surface preparation, sunlight, humidity, dew point, temperature, and other unforeseen jobsite conditions may affect actual product yields and may lead to fisheyes, blistering, pinholes, wrinkling, or out-gassing of air in the concrete and are not product defects and are the responsibility of the installer.
- Personal protective equipment and safety conditions must be considered before using any product. Review all relevant and current documentation including Safety Data Sheets

Warranty:

Visit Coatary.com to view warranty.