

**SECTION 091223 - REINFORCE FLOORING**

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

A. Heavy-duty industrial floor topping (Covered with a glaze coat of epoxy floor coating for interior concrete floors, bases and on Production room CMU as shown on the drawings)

**1.2 REFERENCES**

A. ASTM C 307 - Tensile strength of chemical-resistant mortars, grouts, and monolithic surfacing

B. ASTM C 413 - Absorption of chemical-resistant mortars, grouts, and monolithic surfacing

C. ASTM C 531 - Linear shrinkage and coefficient of thermal expansion of chemical-resistant mortars, grouts, monolithic surfacing and polymer concrete

D. ASTM C 579 - Compressive strength of chemical-resistant mortars, grouts, monolithic surfacing and polymer concrete

E. ASTM C 590 - Flexural strength and modulus of elasticity of chemical-resistant mortars, grouts, monolithic surfacing, and polymer concrete

F. ASTM C 1028 - Determining the static coefficient of friction of ceramic tiles and other like surfaces by the horizontal dynamometer pull-meter method

G. ASTM C 635 - Rate of turning, air-set and time of setting of self-supporting plastics in a horizontal position

H. ASTM C 635 - Tensile properties of plastic

I. ASTM D 761 - Flexural properties of unreinforced and reinforced plastics and electrical insulating materials

J. ASTM D 2240 - Rubber property - durometer hardness

K. ASTM D 4293 - Abrasion resistance of organic coatings by the label abraser

L. ASTM D 4293 - Indicating moisture in concrete by the plastic sheet method

M. ASTM D 4541 - Pull-off strength of coatings using portable adhesion testers

N. MIL-D-33214 - Deck covering materials

O. NACE TM0174 - Evaluation of protective coatings used as lining materials in immersion service

**1.3 QUALITY ASSURANCE**

**A. APPLICATIONS QUALIFICATIONS:** Ensure applicator's qualifications by 1 of the following

1. Use applicator experienced in application of specified materials for a minimum of 45 years on projects of similar size and complexity. Submit list of completed projects including project name and location, name of architect, name of material manufacturer, and Overcrete/Overcrete Xtra E-100 S (2807) - 3 Approximate quantity of materials applied.

2. Submit letter of approval from manufacturer stating applicator is qualified to apply specified materials.

**B. APPLICATIONS PERSONNEL:** Employ persons trained for application of specified materials. Specify: note: Describe requirements for a meeting to coordinate the application of the heavy-duty floor topping and to sequence related work.

**C. PREAPPLICATION MEETING:** Convene a preapplication meeting before start of application of heavy-duty floor topping. Secure attendance of project director, architect, and manufacturer's representative. Review surface preparation, application, curing protection, and coordination with other work.

**1.4 ENVIRONMENTAL CONDITIONS**

A. Ensure materials, concrete surface and air temperatures at time of application are between 65 and 90 degrees F.

**PART 2 PRODUCTS**

**2.1 MANUFACTURER**

A. RUST-OLEUM CORPORATION, 11 Hawthorn Parkway, Vernon Hills, Illinois 60081, Phone (847) 367-7700, Fax (847) 818-2272.

**2.2 PRODUCTS**

**A. HEAVY-DUTY FLOOR TOPPING:** Overcrete heavy-duty Xtra E-100 industrial floor topping

1. Description: Three-component, 100 percent solids, copolymer resin system. VOC compliant

2. Compressive strength, ASTM C 579: 11,200 PSI

3. Flexural strength, ASTM C 590: 4,500 PSI

4. Modulus of elasticity, ASTM C 531: 13.2 X 10<sup>5</sup> PSI

5. Tensile strength, ASTM C 307: 2,000 PSI

6. Bond strength to concrete, ASTM C 454: Exceeds tensile strength of concrete, concrete fails first

7. Tabor abrasion, ASTM D4960, CS 17 wheels: 22 MG loss per 1,000 cycles

8. Water absorption, ASTM C 413: 0.10 percent maximum

9. Linear shrinkage, ASTM C 531: 0.24 percent maximum

10. Linear coefficient of thermal expansion, ASTM C 531: 3.94 X 10<sup>-5</sup> inch/inch/degree F

11. Flammability resistance, ASTM D 1055: 1.2 Class 1A

12. Impact resistance, MIL-D-33214, paragraph 3.15 satisfactory

13. Coefficient of friction, ASTM C 1028: 0.77, ungazed

14. Hardness, ASTM D 2240, Shore D: 88

15. Porosity with no external NACE TM0174: 0.00

16. Color: color K40C

**B. GLAZE COAT:** Overcrete Xtra E-100 epoxy floor coating

1. Description: Two-component, 100 percent solids, copolymer resin system. VOC compliant

2. Compressive strength, ASTM C 579: 7,000 PSI

3. Flexural strength, ASTM D 790: 2,200 PSI

4. Tensile strength, ASTM D 838: 3,000 PSI

5. Tabor abrasion, ASTM D4960, 1,000 G load, CS 17 wheels: 30 mg loss per 1,000 cycles

6. Hardness, ASTM D 2240, Shore D: 85

7. Color: See Finish Schedule in Drawings

**PART 3 - EXECUTION**

**3.1 EXAMINATION**

A. Examine surfaces to receive heavy-duty floor topping. Notify Owner representative if architect surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

B. Determine moisture content of concrete slab in accordance with ASTM C 428. Rubber manufacturers association calcium chloride test and manufacturer's instructions. Do not apply floor topping to concrete slab subjected to osmotic pressure, hydrostatic pressure, or excessive water vapor emission.

C. Ensure new concrete has the following properties:

1. Maximum water/cement ratio of .45

2. Cured a minimum of 10 days at a minimum of 70 degrees F.

3. Minimum compressive strength of 5,500 PSI

4. Minimum tensile strength of 200 PSI

**3.2 SURFACE PREPARATION**

A. Prepare surfaces in accordance with manufacturer's instructions.

B. Ensure concrete is clean and free of dirt, oil, grease, wax, paint, coatings, laitance, formers, curing compounds, sealers, and other surface contaminants which will inhibit bonding of floor topping.

C. Repair cracked or eroded concrete in accordance with manufacturer's instructions. Remove and repair unsound concrete.

D. Provide abraded concrete surface texture similar to 60 grit sandpaper by acid etching, abrasive blasting, or mechanical preparation.

1. If acid etching is performed, completely remove acid residue from concrete surface with a minimum 2,000 PSI pressure water wash.

2. If abrasive blasting or mechanical preparation is performed, completely remove concrete dust from surface.

**3.3 APPLICATION**

A. Install cover base before application of flooring in accordance with manufacturer's instructions at locations indicated on drawings.

B. Ensure there is no standing water on concrete surface.

C. Mix component materials in accordance with manufacturer's instructions. Do not add thickeners to materials.

D. Apply materials while air temperature is stable or decreasing.

E. Apply heavy-duty floor topping to prepared concrete surface in accordance with manufacturer's instructions.

F. Apply topping at a thickness of 14 inch.

G. Spread silica in accordance with manufacturer's instructions to produce even and complete Overcrete/Overcrete Xtra E-100S (2807) - 3 coverage of topping surface.

H. Apply glaze coat over floor topping in accordance with manufacturer's instructions.

**3.4 PROTECTION**

A. Protect floor topping (covered with glaze coat), when cured at temperatures between 65 and 90 degree F.

1. From foot traffic: minimum 8 to 9 hours.

2. From full physical use: minimum 14 hours.

3. From full chemical exposure: minimum of 4 days.

**END OF SECTION 091223**

Completed Work:

1. Match approved samples for color, texture, and coverage

2. Remove, refinish, or repaint work as directed by the Architect when work is not in compliance with specified requirements.

**3.07 CLEANING AND PROTECTION**

**A. Cleaning**

1. During progress of work, remove from site discarded materials, rubbish, and rags at end of each work day.

2. Upon completion of painting work, clean window glass and other nearby surfaces.

3. Do not scratch or otherwise damage finished surfaces.

**B. Protection**

1. Protect work of other trades against damage by painting and finishing work.

2. Correct any damage as acceptable to the Owner's Representative/Manager.

3. Provide wet/dry vacuums as required to remove paint, dust, or debris from other work.

4. Maintain clean work area at all times to prevent damage to other trades' work.

**SCHEDULE - INTERIOR SURFACES**

A. General: Paint systems listed in this schedule are based on GLOIDEN products unless otherwise noted. Products by other manufacturers may be substituted in accordance with Section 012500.

B. Gypsum Wall Board:

- Vinyl Acrylic Latex, eggshell
- Bottom Coat: Primer
- Intermediate Coat: Vinyl Acrylic Latex
- Top Coat: Vinyl Acrylic Latex

C. Wood Trim:

- Alkyd, Satin
- Bottom Coat: Primer
- Intermediate Coat: Alkyd Satin
- Top Coat: Alkyd Satin Finish

D. Ferrous Metal:

- Alkyd, Satin
- Bottom Coat: Rust Inhibitive Paint
- Intermediate Coat: Alkyd Satin Finish
- Top Coat: Alkyd Satin Finish

E. Galvanized Metal:

- Alkyd, Semi-gloss
- Bottom Coat: Galvanized Metal Latex Primer
- Intermediate Coat: Alkyd Semi-Gloss Finish
- Top Coat: Alkyd Semi-Gloss Finish

**END OF SECTION**

**DIVISION 10 - SPECIALTIES**

**SECTION 104413 - FIRE EXTINGUISHERS AND CABINETS**

1.00 GENERAL Division 01 requirements apply to this Section.

1.01 SUMMARY

A. Section includes: Fire extinguishers, cabinets and accessories.

1.02 SUBSTITUTIONS

A. In accordance with Section 012500.

1.03 QUALITY ASSURANCE

A. Single Source Responsibility: Obtain permits from one manufacturer.

B. UL Listed Products: Provide new portable fire extinguishers which are UL listed and bear UL "Listing Mark" for type, rating, and classification of extinguisher indicated.

2.00 PRODUCTS

2.01 FIRE EXTINGUISHER CABINETS

A. Refer to Drawings for type.

2.02 FIRE EXTINGUISHERS

A. General: Provide fire extinguishers for each location indicated, which comply with requirements of governing authorities.

1. Fill and service extinguishers to comply with requirements of governing authorities and manufacturer's requirements.

2. Multi-Purpose Dry Chemical Type: J.L. INDUSTRIES Model "Cosmo 56", UL-Rated 2A-10BC, 5 lb. nominal capacity, in enameled steel container, for Class A, Class B and Class C fires.

3. Multi-Purpose Dry Chemical Type: J.L. INDUSTRIES Model "Cosmo 56", UL-Rated 3A-4BC, 10 lb. nominal capacity, in enameled steel container, for Class A, Class B and Class C fires.

2.03 MOUNTING BRACKETS

A. Provide manufacturer's standard brackets designed to prevent accidental dislodgement of extinguisher, of size required for type and capacity of extinguisher indicated, in manufacturer's standard painted finish.

1. Provide brackets for all extinguishers provided.

**END OF SECTION**

**SECTION 102600 - TOILET ACCESSORIES**

1.00 GENERAL Division 01 requirements apply to this Section.

1.01 SUMMARY

A. Section includes:

- Toilet accessories
- Accessories

1.02 REFERENCES

A. ANSIASTM A321 - Zinc (Hot-Dip Galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars and Strips.

B. ANSIASTM A366 - Steel, Carbon, Cold-Rolled Sheet, Commercial Quality.

C. ANSIASTM A396 - Zinc Coating (Hot-Dip) on Assembled Steel Products.

D. ANSIASTM B458 - Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium.

E. ASTM A157 - Stainless and Heat-Resisting Chromium-Nickel Steel Tubing and Strip.

F. ASTM A289 - Seamless and Heat-Treated Austenitic Stainless Steel Tubing for General Service.

1.03 SUBMITTALS

A. Submit product data under provisions of Section 012500.

B. Provide product data on accessories checked, including manufacturer's installation and mounting methods.

1.04 REGULATORY REQUIREMENTS

A. Conform to applicable code for installing water closets.

1.05 SEQUENCING AND COORDINATION

A. Coordinate the work of the Section with the placement of structural wall reinforcement to receive anchor attachments.

B. Insert and anchor anchor attachments and anchoring devices to be set in concrete or built-up masonry before other work of this Section is begun.

C. Access: Coordinate accessory locations with other work to avoid interference with other work and servicing of accessory units.

**1.06 WARRANTY**

A. Manufacturer's standard manufacturer warranty for materials and workmanship.

2.00 PRODUCTS

**2.01 MANUFACTURERS**

A. Obtain list of toilet accessory, obtain all items from a single manufacturer.

B. Obtain list of products of the following manufacturers, provided they comply with requirements of contract documents, will be among those considered acceptable:

- Source: Washroom Equipment, Inc.
- Bradley Corporation.

2.02 MATERIALS

A. Sheet Steel: ANSIASTM A366, 20 page minimum unless otherwise indicated.

B. Stainless Steel Sheet: ASTM A167, Type 304.

C. Tiling: ASTM A289, thinness steel.

D. Adhesive: Type as recommended by accessory manufacturer for component and substrate.

E. Fasteners, Screws, and Bolts: Hot-dip galvanized.

F. Expansion Shields: Fibre, lead, or rubber as recommended by accessory manufacturer for component and substrate.

G. Primer: As required for applied finish.

**2.03 MANUFACTURED UNITS**

A. Refer to Drawings for list of accessories.

2.04 FABRICATION

A. Weld and grind smooth joints of fabricated components.

B. Form exposed surfaces from single sheet of stock, free of joints.

C. Form surfaces flat without distortion. Minimize flat-ness without scratches or dents.

D. Back paint components where contact is made with building finishes to prevent electrolysis.

E. Shop assemble components and package complete with anchors and fittings.

F. Provide steel anchor plates, strikers, and anchor components for installation.

G. Hot-dip galvanize exposed and painted ferrous metal and fastening devices.

2.05 FACTORY FINISHING

A. Galvanizing: ANSIASTM A123 or A366 1.25 oz/ft<sup>2</sup>

B. Shop Prime/Ferrous Metals: Preheat and clean, spray apply one coat primer and bake.

C. Enamel: Prebake to clean condition, apply one coat primer and minimum two coats baked enamel.

D. Chromate/Nickel Plating: ANSIASTM B456, Type SC 2 satin finish.

E. Stainless Steel: No. 4 satin letter finish.

3.00 EXECUTION

3.01 EXAMINATION

A. Verify that all conditions are ready to receive work and dimensions are as instructed by the manufacturer.

B. Beginning of installation means acceptance of existing conditions and substrate.

3.02 PREPARATION

A. Deliver materials and rough-in frames to site at appropriate time for building-in.

B. Provide tentable and rough-in measurements as required.

C. Verify exact location of accessories for installation.

3.03 INSTALLATION

A. Install products in strict compliance with manufacturer's written instructions and recommendations, including the following:

- Verify blocking has been installed properly.
- Verify location does not interfere with door swings or use of fixtures.
- Comply with manufacturer's recommendations for backing and proper support.
- Use bolters and anchors suitable for substrate and project conditions.
- Install units rigid, straight, plumb, and level, in accordance with manufacturer's installation instructions and approved shop drawings.
- Conceal evidence of cutting, cutting, and snag to room finish.
- Test for proper operation.

3.04 CLEANING AND PROTECTION

A. Clean exposed surfaces of compartments, hardware, and fittings using methods acceptable to the manufacturer.

B. Touch-up, repair, or replace damaged products until Substantial Completion.

3.05 ADJUSTING

A. Adjust toilet accessories for proper operation and verify that mechanisms function smoothly.

B. Replace damaged or defective items.

**END OF SECTION**

**DIVISION 11 - SPECIALTIES**

**SECTION 11400 - FOOD SERVICE EQUIPMENT**

**PART 1 - GENERAL**

1.01 SUMMARY

A. The owner shall purchase all food service equipment and deliver to the site. The contractor shall unload, uncrate, install, test and start-up all food service equipment items unless otherwise stated herein, including any necessary supporting or positioning accessories as may be required. The contractor shall also provide all electrical device plumbing connections as required for equipment items to operate properly. Gas regulators will be provided with the food service equipment by the equipment supplier.

B. Provide supervision to oversee and limit any technical support required during final connection of all equipment by electrical and mechanical trades.

C. Refer to Division 15 sections for required drain traps, clean traps, atmospheric vents, valves, pipes and pipe fittings, ductwork, and other materials necessary to complete mechanical hookup of food service equipment.

D. Refer to Division 16 sections for wiring, disconnects, and other materials necessary to complete electrical connection of food service equipment.

1.02 SUBMITTALS

A. General: Submit the following in accordance with conditions of contract and division 1 specifications sections.

B. Submit to the owners representative a complete list and required drawings, specifications and product literature for all equipment required by this specification and as shown in contract documents.

1. Regularly manufactured items shall be submitted in the format of their standard published literature.

2. Fabricated items shall be submitted in the format of detailed drawings and specifications showing all information that fabricator shall use to actually construct item. This shall include products of all layout components.

3. Submit bound maintenance manual with inset section for each item of operational equipment, include product data, operating/maintenance instructions, parts list, product warranty and similar applicable information.

1.03 QUALITY ASSURANCE

A. MANUFACTURER'S QUALIFICATIONS: Firms regularly engaged in manufacture of food service equipment of types, capacity, and size required, whose products have been satisfactory use in similar service for not less than 5 years.

B. INSTALLER QUALIFICATIONS: Engage an experienced installer who has completed food service similar in material, design, and extent to that indicated for project that has resulted in contractor with a record of successful in-service performance.

C. CODES AND STANDARDS:

- NSF STANDARDS: Comply with applicable National Sanitation Foundation (NSF) standards and recommended criteria. Provide each principle item of food service equipment with a NSF "SEAL OF APPROVAL".
- UL LABELS: Where available provide UL labels on prime electrical components of food service equipment. Provide UL "Recognized Listing" on other items with electrical components, signifying listing by UL, where available.
- ANSI STANDARDS: Comply with applicable ANSI standards for electric pressure and gas-tuning appliances, for piping to compressed gas cylinders, and for plumbing fittings including vacuum breakers and air gaps to prevent siphonage in water piping.
- NFPA CODES: Install food service equipment in accordance with the following National Fire Protection Association (NFPA) codes:
  - NFPA 54 - NATIONAL FUEL GAS CODE
  - NFPA 70 - NATIONAL ELECTRICAL CODE
  - NFPA 95 - Removal of smoke and grease-laden vapors from commercial cooking equipment
- ASME BOILER CODE: Construct steam generators and closed steam heating equipment to comply with American Society of Mechanical Engineers (ASME).
- BOILER AND PRESSURE VESSEL CODE: Section items not exceeding 15 PSI, 250°F (121°C), or section 1 for higher pressure temperature units.

1.04 PROJECT CONDITIONS

A. GENERAL: Take field measurements to assure accurate fit of installed equipment.

B. Check electrical characteristics of steam and pressure heating pressure-regulating valves where applicable to equipment.

1.05 REGULATORY REQUIREMENTS

A. Conform to applicable code for installing water closets.

1.06 SEQUENCING AND COORDINATION

A. Coordinate the work of the Section with the placement of structural wall reinforcement to receive anchor attachments.

B. Insert and anchor anchor attachments and anchoring devices to be set in concrete or built-up masonry before other work of this Section is begun.

C. Access: Coordinate accessory locations with other work to avoid interference with other work and servicing of accessory units.

1.07 WARRANTY

A. Manufacturer's standard manufacturer warranty for materials and workmanship.

2.00 PRODUCTS

**2.01 MANUFACTURERS**

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E. Fasteners, Screws, and Bolts: Hot-dip galvanized.

F. Expansion Shields: Fibre, lead, or rubber as recommended by accessory manufacturer for component and substrate.

G. Primer: As required for applied finish.

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KRISPY KREME DOUGHNUTS  
1730 EAST 9 MILE ROAD  
PENSACOLA, FL 32514

Krispy Kreme

SEAL: \_\_\_\_\_

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PROJECT NO.: 18-004

CHECKED BY: Checker

DRAWN BY: Author

SHEET TITLE: SPECIFICATIONS - ARCHITECTURAL

SHEET NO.: \_\_\_\_\_

SC5

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Architect  
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