

**Resilient Tile Flooring 09658****MANUSPEC****Distributor**

Gerbert Ltd.  
 P.O. Box 4944  
 Lancaster, PA 17604-4944  
 (877) 326-7873  
 (717) 299-5035  
 Fax: (717) 394-1937  
 E-mail: gerbertinfo@gerbertltd.com

**Manufacturer**

Dodge-Regupol, Inc.  
 P.O. Box 989  
 Lancaster, PA 17608-0989  
 715 Fountain Ave.  
 Lancaster, PA 17601  
 (800) 322-1923  
 (717) 295-3400  
 Fax: (717) 295-3414  
 E-mail: sales@regupol.com  
 www.regupol.com

This MANU-SPEC™ utilizes the Construction Specifications Institute (CSI) Manual of Practice, including MasterFormat™, SectionFormat™ and PageFormat™. A MANU-SPEC is a manufacturer-specific proprietary product specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets [ ]; delete optional text in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

This MANU-SPEC specifies resilient flooring, both tile and sheet rolls, using recycled rubber material for flooring applications, including commercial, retail/mercantile, educational, hospital/healthcare and industrial/office, marketed under the ECOsurfaces Xtreme Recycled Rubber™ program, which includes the EConights™, ECOearth™, ECOstone™, ECOpave™, ECOshock™ and ECOgrip™ trade names, as manufactured by Dodge-Regupol, Inc., and distributed by Gerbert, Ltd. Revise MANU-SPEC section number and title below to suit project requirements, specification practices and section content. Refer to CSI MasterFormat for other section numbers and titles, including 09600 Flooring; 09620 Specialty Flooring; and 09650 Resilient Flooring.

SECTION 09658  
 RESILIENT TILE FLOORING  
 (Recycled Rubber Flooring)

## PART 1 – GENERAL

## 1.01 SUMMARY

A. Section Includes: Resilient Flooring, including recycled rubber flooring.

1. Types: Types of recycled rubber resilient flooring include
  - a. Recycled rubber resilient floor tile.
  - b. Recycled rubber resilient roll/sheet flooring.

**Resilient Tile Flooring 09658**

- c. Recycled rubber resilient molded tile and paver flooring.

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI MasterFormat and specifier's practice.

B. Related Sections: Section(s) related to this section include:

1. Concrete Substrate: Division 3 Concrete Section(s).
2. Plywood Substrate: Division 6.

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Division 1 References Section may establish the edition date of standards. This article does not require compliance with standard but is merely a listing of references used. Article below should list only those industry standards used in this section. Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.

## 1.02 REFERENCES

- A. Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.
- B. American Society for Testing and Materials (ASTM):
  1. ASTM C423 Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
  2. ASTM C518 Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
  3. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension
  4. ASTM D2047 Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as measured by the James Machine
  5. ASTM E413 Classification for Rating Sound Insulation
  6. ASTM E492 Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine
  7. ASTM F137 Test Method for Flexibility of Resilient Flooring Materials
  8. ASTM F142 Test Method for Indentation of Resilient Floor Coverings (McBurney Test)
  9. ASTM F150 Test Method for Electrical Resistance of Conductive Resilient Flooring
  10. ASTM F710 Practice for Preparing Concrete Floors and Other Monolithic Floors to Receive Resilient Flooring
  11. ASTM F925 Test Method for Resistance to Chemicals of Resilient Flooring
  12. ASTM F970 Test Method for Static Load Limit

**Resilient Tile Flooring 09658****1.03 SYSTEM DESCRIPTION**

- A. Performance Requirements: Provide recycled rubber resilient flooring, which has been manufactured and installed to maintain performance criteria stated by manufacturer without defects, damage or failure.

**1.04 SUBMITTALS**

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data, including manufacturer's SPEC-DATA® product sheet, for specified products.
- C. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors, patterns and textures.
- D. Samples: Submit selection and verification samples for finishes, colors and textures.
- E. Quality Assurance Submittals: Submit the following:
  - 1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
  - 2. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
  - 3. Manufacturer's Instructions: Manufacturer's installation instructions

Specifier Note: Coordinate paragraph below with Part 3 Field Quality Requirements Article herein. Retain or delete as applicable.

- 4. Manufacturer's Field Reports: Manufacturer's field reports specified herein.
- F. Closeout Submittals: Submit the following:
  - 1. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operational Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.
  - 2. Warranty: Warranty documents specified herein.

**1.05 QUALITY ASSURANCE**

- A. Qualifications:
  - 1. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.

Specifier Note: Retain paragraph below to suit project requirements; otherwise, delete paragraph below.

- a. Certificate: When requested, submit certificate indicating qualification.
- 2. Manufacturer's Qualifications: Manufacturer capable of providing field service representation during construction and approving application method.

Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Conditions of Contract and Division 1 Regulatory Requirements Section. Repetitive statements should be avoided.

- B. Regulatory Requirements: [Specify applicable requirements of regulatory agencies.].
- C. Mock-Ups: Install at project site a job mock-up using acceptable products and manufacturer-approved installation methods. Obtain Owner's and Architect's acceptance of finish color, texture

**Resilient Tile Flooring 09658**

and pattern, and workmanship standard. Comply with Division 1 Quality Control (Mock-Up Requirements) Section.

Specifier Note: Edit paragraph below to specify mock-up size.

1. Mock-Up Size: [Specify mock-up size.].
  2. Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.
  3. Incorporation: Mock-up may be incorporated into final construction upon Owner's approval.
- D. Preinstallation Meetings: Conduct preinstallation meeting to verify project requirements, substrate conditions, manufacturer's instructions and manufacturer's warranty requirements. Comply with Division 1 Project Management and Coordination (Project Meetings) Section.
- E. Preinstallation Testing: Conduct preinstallation testing as follows: [Specify substrate testing; consult with flooring manufacturer.].

**1.06 DELIVERY, STORAGE & HANDLING**

- A. General: Comply with Division 1 Product Requirements Sections.
- B. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- D. Storage and Protection: Store materials at temperature and humidity conditions recommended by manufacturer and protect from exposure to harmful weather conditions.

**1.07 PROJECT CONDITIONS**

- A. Temperature Requirements: Maintain air temperature in spaces where products will be installed for time period before, during and after installation as recommended by manufacturer.
- B. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

Specifier Note: Coordinate article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty) Section.

**1.08 WARRANTY**

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to and not a limitation of, other rights Owner may have under Contract Documents.

Specifier Note: Coordinate paragraph below with manufacturer's warranty requirements.

1. Warranty Period: [Specify term.] years commencing in Date of Substantial Completion.

**1.09 MAINTENANCE**

- A. Extra Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals (Maintenance Materials) Section.

Specifier Note: Revise paragraph below specifying size and percentage as required for project.

1. Quantity: Furnish quantity of recycled rubber flooring units equal to [Specify %.] of amount installed.

**Resilient Tile Flooring 09658**

2. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra materials.

**PART 2 – PRODUCTS**

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards, and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

**2.01 RECYCLED RUBBER FLOORING****A. Manufacturer: Dodge-Regupol Inc.**

Specifier Note: Paragraph below is an addition to CSI Section Format and a supplement to MANU-SPEC. Retain or delete paragraph below per project requirements and specifier's practice.

1. Contact: P.O. Box 989, Lancaster, PA 17608-0989 (715 Fountain Ave., Lancaster, PA 17601); Telephone: (800) 322-1923, (717) 295-3400; Fax: (717) 295-3414.
- B. Proprietary Product(s): Dodge-Regupol Recycled Rubber Resilient Flooring for Indoor/Outdoor Use:
  1. ECONights recycled rubber resilient [sheet] [tile] flooring
  2. ECOstone recycled rubber resilient [sheet] [tile] flooring
  3. ECOearth recycled rubber resilient [sheet] [tile] flooring
  4. ECOpave recycled rubber resilient molded [paver] [tile] flooring
  5. ECOshock recycled rubber underlayment
  6. ECOgrip polyurethane adhesive

Specifier Note: Below ECONights™ product combines the highest quality recycled SBR tire rubber and bright psychedelic recycled EPDM flecks to give the flooring a "black light" or glowing effect. ECONights™, available in 20 hot new colors, is a single-ply nonlaminated surface with high slip resistance, durability, cushioned resilience, stain resistance and consistent color (no wearlayer).

**C. Dodge-Regupol ECONights Recycled Rubber Resilient Flooring:**

1. Roll Dimension [48" (1219mm) x 5/32" (4mm) standard] [48" (1219mm) x 1/4" (6mm) special] [48" (1219mm) x 3/8" (9.5mm) special].
  - a. Roll Weight [Specify 0.85lb/ft<sup>2</sup> (4 kg/m<sup>2</sup>); or 1.23lb/ft<sup>2</sup> (6 kg/m<sup>2</sup>); or 1.95lb/ft<sup>2</sup> (10 kg/m<sup>2</sup>)].
  - b. Roll Length: 50 linear feet (15m)
2. Tile Dimension: [36" (914mm) x 36" (914mm) x 1/4" (6mm) or 5/32" (4mm)] [18" (457mm) x 18" (457mm) x 1/4" (6mm) or 5/32" (4mm)].
3. Colors: [Specify color from manufacturer's standard colors, or custom colors, or special logo/graphic inlays].
4. Product Testing:
  - a. Tensile Strength, lb/in<sup>2</sup> (ASTM D412): 200 min.
  - b. Flexibility, 1/4-inch mandrel (ASTM F137): pass
  - c. Static Load, 1000 lb/in<sup>2</sup> (ASTM F970): less than 0.020 in.

**Resilient Tile Flooring 09658**

- d. Coefficient of Friction (ASTM 2047): greater than 0.6
- e. McBurney Indentation, 1 min at 77° F (25°C) (ASTM F142): less than 0.120 in.
- f. Static Dissipation (ASTM F150): between  $10^6 \Omega$  and  $10^9 \Omega$ .
- g. Chemical Resistance (ASTM F925):
  - (1) 5% Acetic Acid: No Change
  - (2) 70% Isopropyl Alcohol: No Change
  - (3) Mineral Oil: No Change
  - (4) 5% Sodium Hydroxide: No Change
  - (5) 5% Hydrochloric Acid: No Change
  - (6) 5% Ammonia: No Change
  - (7) Bleach: No Change
  - (8) 5% Phenol: No Change
  - (9) Gasoline: No Change
  - (10) Sulfuric Acid: No Change
  - (11) Kerosene: No Change
  - (12) Olive Oil: No Change
- h. Ambient Noise Reduction, Sabin/ft<sup>2</sup> (ASTM C423): 0.10
- i. Thermal Conductivity, BTU-in/hr-ft<sup>2</sup>-°F (ASTM C518): approximately 0.406

Specifier Note: Below ECOstone™ product combines the look of marble with the attributes of high quality EPDM rubber. Available in 8 cool gray patterns, ECOstone™ is a single-ply nonlaminated surface with high slip resistance, durability, cushioned resilience, stain resistance and consistent color (no wearlayer).

**D. Dodge-Regupol ECOstone Recycled Rubber Resilient Flooring:**

1. Roll Dimension [48" (1219mm) x 5/32" (4mm) standard] [48" (1219mm) x 1/4" (6mm) special] [48" (1219mm) x 3/8" (9.5mm) special].
  - a. Roll Weight [Specify 1.20 lb/ft<sup>2</sup> (4 kg/m<sup>2</sup>); or 1.50 lb/ft<sup>2</sup> (6 kg/m<sup>2</sup>); or 2.95 lb/ft<sup>2</sup> (10 kg/m<sup>2</sup>)].
  - b. Roll Length: 50 linear feet (15m)
2. Tile Dimension: [36" (914mm) x 36" (914mm) x 1/4" (6mm) or 5/32" (4mm)] [18" (457mm) x 18" (457mm) x 1/4" (6mm) or 5/32" (4mm)].
3. Colors: [Specify color from manufacturer's standard colors, or custom colors, or special logo/graphic inlays.].
4. Product Testing:
  - a. Tensile Strength, lb/in<sup>2</sup> (ASTM D412): 150 min.
  - b. Flexibility, 1/4-inch mandrel (ASTM F137): pass
  - c. Static Load, 1000 lb/in<sup>2</sup> (ASTM F970): less than 0.025 in.
  - d. Coefficient of Friction (ASTM 2047): greater than 0.6
  - e. Chemical Resistance (ASTM F925):
    - (1) 5% Acetic Acid: No Change

**Resilient Tile Flooring 09658**

- (2) 70% Isopropyl Alcohol: No Change
- (3) Mineral Oil: No Change
- (4) 5% Sodium Hydroxide: No Change
- (5) 5% Hydrochloric Acid: No Change
- (6) 5% Ammonia: No Change
- (7) Bleach: No Change
- (8) 5% Phenol: No Change
- (9) Gasoline: Slight Change
- (10) Sulfuric Acid: No Change
- (11) Kerosene: Slight Change
- (12) Olive Oil: No Change

f. Ambient Noise Reduction, Sabin/ft<sup>2</sup> (ASTM C423): 0.05

g. Thermal Conductivity, BTU-in/hr-ft<sup>2</sup>-°F (ASTM C518): approximately 0.445

Specifier Note: Below made from high quality EPDM rubber, ECOearth™ offers 6 warm and neutral earth tones in a single-ply nonlaminated surface with high slip resistance, durability, cushioned resilience, stain resistance and consistent color (no wearlayer).

**E. Dodge-Regupol ECOearth Recycled Rubber Resilient Flooring:**

1. Roll Dimension [48" (1219mm) x 5/32" (4mm) standard] [48" (1219mm) x 1/4" (6mm) special] [48" (1219mm) x 3/8" (9.5mm) special].
  - a. Roll Weight [Specify 1.20 lb/ft<sup>2</sup> (4 kg/m<sup>2</sup>); or 1.50 lb/ft<sup>2</sup> (6 kg/m<sup>2</sup>); or 2.95 lb/ft<sup>2</sup> (10 kg/m<sup>2</sup>)].
  - b. Roll Length: 50 linear feet (15m)
2. Tile Dimension: [36" (914mm) x 36" (914mm) x 1/4" (6mm) or 5/32" (4mm)] [18" (457mm) x 18" (457mm) x 1/4" (6mm) or 5/32" (4mm)].
3. Colors: [Specify color from manufacturer's standard colors, or custom colors, or special logo/graphic inlays.].
4. Product Testing:
  - a. Tensile Strength, lb/in<sup>2</sup> (ASTM D412): 150 min.
  - b. Flexibility, 1/4-inch mandrel (ASTM F137): pass
  - c. Static Load, 1000 lb/in<sup>2</sup> (ASTM F970): less than 0.025 in.
  - d. Coefficient of Friction (ASTM 2047): greater than 0.6
  - e. Chemical Resistance (ASTM F925):
    - (1) 5% Acetic Acid: No Change
    - (2) 70% Isopropyl Alcohol: No Change
    - (3) Mineral Oil: No Change
    - (4) 5% Sodium Hydroxide: No Change
    - (5) 5% Hydrochloric Acid: No Change
    - (6) 5% Ammonia: No Change

**Resilient Tile Flooring 09658**

- (7) Bleach: No Change
- (8) 5% Phenol: No Change
- (9) Gasoline: Slight Change
- (10) Sulfuric Acid: No Change
- (11) Kerosene: Slight Change
- (12) Olive Oil: No Change
- f. Ambient Noise Reduction, Sabin/ft<sup>2</sup> (ASTM C423): 0.05
- g. Thermal Conductivity, BTU-in/hr-ft<sup>2</sup>-°F (ASTM C518): approximately 0.445

Specifier Note: Below ECOpave™ product offers heavy duty molded surfaces of the highest quality and endless design options. ECOpave™ is made from only premium quality 100% recycled SBR tire rubber and is available in several thicknesses to suit traffic requirements. ECOpave™ is outstanding for abuse-oriented spaces and extra heavy-duty use indoors and outdoors. It is unaffected by ice, water and extreme temperature and is safe and slip resistant.

F. Dodge-Regupol ECOpave Recycled Rubber Resilient Flooring:

1. Thickness:
  - a. Interlocking “dog-bone shaped” paver:
    - (1) Thickness: [Specify 7/8” (22.2mm) or 1 3/4” (44mm)].
    - (2) Weight: [Specify 1.25 lb/ft<sup>2</sup> (6kg/m<sup>2</sup>) or 2.50 lb/ft<sup>2</sup> (12 kg/m<sup>2</sup>)].
  - b. Rectangular Tile:
    - (1) Thickness: [Specify 5/8” (15.9mm) or 1 1/4” (32mm)].
    - (2) Weight: [Specify 2.5 lb/ft<sup>2</sup> (12kg/m<sup>2</sup>) or 4.9 lb/ft<sup>2</sup> (24 kg/m<sup>2</sup>)].
  - c. Embossed Square Tile
    - (1) Thickness: [Specify 5/8” (15.9mm) or 1 1/4” (32mm)].
    - (2) Weight: [Specify 4.9 lb/ft<sup>2</sup> (24 kg/m<sup>2</sup>) or 9.8 lb/ft<sup>2</sup> (48 kg/m<sup>2</sup>)].
2. Shape:
  - a. Interlocking “dog-bone shaped” paver: [Specify 7 3/4” x 6 1/4” x 4 1/2” (197mm x 159mm x 114mm)].
  - b. Rectangular Tile: [Specify 3.28’ x 1.64’ (1000mm x 500mm)].
  - c. Embossed square pavertile: [Specify 2’ x 2’ (610mm x 610 mm)].
3. Colors: [Specify color from manufacturer’s standard colors.].
4. Product Testing:
  - a. Tensile Strength, lb/in<sup>2</sup> (ASTM D412): 200 min.
  - b. Coefficient of Friction (ASTM 2047): greater than 0.6

Specifier Note: Edit article below to suit project requirements. If substitutions are permitted, edit test below. Add text to refer to Division 1 Project Requirements (Product substitutions Procedures) Section.

## 2.02 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

## 2.03 RELATED MATERIALS



**Resilient Tile Flooring 09658**

A. Related Materials: Refer to other sections listed in Related Sections paragraph herein for related materials.

**2.04 SOURCE QUALITY**

A. Source Quality: Obtain recycled rubber resilient flooring materials from a single manufacturer.

**PART 3 – EXECUTION**

Specifier Note: Article below is an addition to the CSI Section Format and a supplement to MANU-SPEC. Revise article below to suit project requirements and specifier's practice.

**3.01 MANUFACTURER'S INSTRUCTIONS**

A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

**3.02 EXAMINATION**

A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.

**3.03 PREPARATION**

A. Surface Preparation: [Specify applicable product preparation requirements.].

Specifier Note: Coordinate article below with manufacturer's recommended installation details and requirements.

**3.04 ERECTION/INSTALLATION/APPLICATION/CONSTRUCTION**

A. Recycled Rubber Flooring Installation: Comply with Dodge-Regupol Installation Manual for procedures and techniques for recycled rubber resilient flooring installation.

B. Finish Color/Textures/Patterns: [Specify installation finishes coordinated with finishes specified in Part 2 Products.].

C. Related Products Installation: Refer to other sections listed in Related Sections paragraph herein for related products installation.

**3.05 FIELD QUALITY REQUIREMENTS**

Specifier Note: Edit paragraph below. Establish number and duration of periodic site visits with Owner and manufacturer, and specify below. Consult with manufacturer for services required. Coordinate paragraph below with Division 1 Quality Assurance Section and Part 1 Quality Assurance Submittals herein. Delete if manufacturer's field service not required.

A. Manufacturer's Field Services: Upon Owner's request, provide manufacturer's field service consisting of product use recommendations and periodic site visit for inspection of product installation in accordance with manufacturer's instructions.

1. Site Visits: [Specify number and duration of periodic site visits.].

**3.06 CLEANING**

A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove construction debris from project site and legally dispose of debris.

**3.07 PROTECTION**

A. Protection: Protect installed product and finish surfaces from damage during construction.

**Resilient Tile Flooring 09658**

Specifier Note: Retain article below to suit project requirements. CSI PageFormat allows for Schedules, Forms and Tables to be located at the end of a section. Article may be used to describe specific criteria requirements of similar products or equipment.

**3.08 SCHEDULES**

Specifier Note: Retain paragraph below to suit project requirements. Reference a schedule or include a schedule as an attachment, which indicates where to locate products and equipment.

A. Schedules: [Specify reference to applicable schedules.].

**END OF SECTION**

## MASTERSPEC

### SECTION 09658 RESILIENT TILE FLOORING (Recycled Rubber Flooring)

#### PART 1 – GENERAL

##### 1.02 SUMMARY

- A. Section Includes: Resilient Flooring, including recycled rubber flooring.
  - 2. Types: Types of recycled rubber resilient flooring include
    - d. Recycled rubber resilient floor tile.
    - e. Recycled rubber resilient roll/sheet flooring.
    - f. Recycled rubber resilient molded tile and paver flooring.
- B. Related Sections: Section(s) related to this section include:
  - 3. Concrete Substrate: Division 3 Concrete Section(s).
  - 4. Plywood Substrate: Division 6.

##### 2.02 REFERENCES

- C. Standards listed by reference, including revisions by issuing authority, form a part of this specification section to extent indicated. Standards listed are identified by issuing authority, authority abbreviation, designation number, title or other designation established by issuing authority. Standards subsequently referenced herein are referred to by issuing authority abbreviation and standard designation.
- D. American Society for Testing and Materials (ASTM):
  - 13. ASTM C423 Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
  - 14. ASTM C518 Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
  - 15. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension
  - 16. ASTM D2047 Test Method for Static Coefficient of Friction of Polish-Coated Floor Surfaces as measured by the James Machine
  - 17. ASTM E413 Classification for Rating Sound Insulation
  - 18. ASTM E492 Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine
  - 19. ASTM F137 Test Method for Flexibility of Resilient Flooring Materials
  - 20. ASTM F142 Test Method for Indentation of Resilient Floor Coverings (McBurney Test)
  - 21. ASTM F150 Test Method for Electrical Resistance of Conductive Resilient Flooring
  - 22. ASTM F710 Practice for Preparing Concrete Floors and Other Monolithic Floors to Receive Resilient Flooring
  - 23. ASTM F925 Test Method for Resistance to Chemicals of Resilient Flooring

**Resilient Tile Flooring 09658**

## 24. ASTM F970 Test Method for Static Load Limit

## 2.03 SYSTEM DESCRIPTION

- B. Performance Requirements: Provide recycled rubber resilient flooring, which has been manufactured and installed to maintain performance criteria stated by manufacturer without defects, damage or failure.

## 1.04 SUBMITTALS

- G. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- H. Product Data: Submit product data, including manufacturer's SPEC-DATA® product sheet, for specified products.
- I. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including anchorage, accessories, finish colors, patterns and textures.
- J. Samples: Submit selection and verification samples for finishes, colors and textures.
- K. Quality Assurance Submittals: Submit the following:
5. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
  6. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
  7. Manufacturer's Instructions: Manufacturer's installation instructions
  8. Manufacturer's Field Reports: Manufacturer's field reports specified herein.
- L. Closeout Submittals: Submit the following:
3. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operational Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance.
  4. Warranty: Warranty documents specified herein.

## 1.05 QUALITY ASSURANCE

- F. Qualifications:
3. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.
    - b. Certificate: When requested, submit certificate indicating qualification.
  4. Manufacturer's Qualifications: Manufacturer capable of providing field service representation during construction and approving application method.
- G. Regulatory Requirements: [Specify applicable requirements of regulatory agencies.].
- H. Mock-Ups: Install at project site a job mock-up using acceptable products and manufacturer-approved installation methods. Obtain Owner's and Architect's acceptance of finish color, texture and pattern, and workmanship standard. Comply with Division 1 Quality Control (Mock-Up Requirements) Section.
4. Mock-Up Size: [Specify mock-up size.].
  5. Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.

**Resilient Tile Flooring 09658**

6. Incorporation: Mock-up may be incorporated into final construction upon Owner's approval.
- I. Preinstallation Meetings: Conduct preinstallation meeting to verify project requirements, substrate conditions, manufacturer's instructions and manufacturer's warranty requirements. Comply with Division 1 Project Management and Coordination (Project Meetings) Section.
- J. Preinstallation Testing: Conduct preinstallation testing as follows: [Specify substrate testing; consult with flooring manufacturer.].

**1.06 DELIVERY, STORAGE & HANDLING**

- E. General: Comply with Division 1 Product Requirements Sections.
- F. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- G. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- H. Storage and Protection: Store materials at temperature and humidity conditions recommended by manufacturer and protect from exposure to harmful weather conditions.

**1.07 PROJECT CONDITIONS**

- C. Temperature Requirements: Maintain air temperature in spaces where products will be installed for time period before, during and after installation as recommended by manufacturer.
- D. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

**1.08 WARRANTY**

- C. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
  - D. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to and not a limitation of, other rights Owner may have under Contract Documents.
2. Warranty Period: [Specify term.] years commencing in Date of Substantial Completion.

**1.09 MAINTENANCE**

- B. Extra Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals (Maintenance Materials) Section.
5. Quantity: Furnish quantity of recycled rubber flooring units equal to [Specify %.] of amount installed.
  6. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra materials.

**PART 2 – PRODUCTS****2.01 RECYCLED RUBBER FLOORING**

- G. Manufacturer: Dodge-Regupol Inc.
  5. Contact: P.O. Box 989, Lancaster, PA 17608-0989 (715 Fountain Ave., Lancaster, PA 17601); Telephone: (800) 322-1923, (717) 295-3400; Fax: (717) 295-3414.
- H. Distributor: Gerbert Ltd.

**Resilient Tile Flooring 09658**

1. Contact: P.O. Box 4944, Lancaster, PA 17604-4944; Telephone: (877)326-7873, (717) 299-5035; Fax: (717)394-1937

- I. Proprietary Product(s): Dodge-Regupol Recycled Rubber Resilient Flooring for Indoor/Outdoor Use:
7. EConights recycled rubber resilient [sheet] [tile] flooring
  8. ECOstone recycled rubber resilient [sheet] [tile] flooring
  9. ECOearth recycled rubber resilient [sheet] [tile] flooring
  10. ECOpave recycled rubber resilient molded [paver] [tile] flooring
  11. ECOshock recycled rubber underlayment
  12. ECOgrip polyurethane adhesive
- J. Dodge-Regupol EConights Recycled Rubber Resilient Flooring:
1. Roll Dimension [48" (1219mm) x 5/32" (4mm) standard] [48" (1219mm) x 1/4" (6mm) special] [48" (1219mm) x 3/8" (9.5mm) special].
    - c. Roll Weight [Specify 0.85lb/ft<sup>2</sup> (4 kg/m<sup>2</sup>); or 1.23lb/ft<sup>2</sup> (6 kg/m<sup>2</sup>); or 1.95lb/ft<sup>2</sup> (10 kg/m<sup>2</sup>)].
    - d. Roll Length: 50 linear feet (15m)
  6. Tile Dimension: [36" (914mm) x 36" (914mm) x 1/4" (6mm) or 5/32" (4mm)] [18" (457mm) x 18" (457mm) x 1/4" (6mm) or 5/32" (4mm)].
  7. Colors: [Specify color from manufacturer's standard colors, or custom colors, or special logo/graphic inlays.].
  8. Product Testing:
    - j. Tensile Strength, lb/in<sup>2</sup> (ASTM D412): 200 min.
    - k. Flexibility, 1/4-inch mandrel (ASTM F137): pass
    - l. Static Load, 1000 lb/in<sup>2</sup> (ASTM F970): less than 0.020 in.
    - m. Coefficient of Friction (ASTM 2047): greater than 0.6
    - n. McBurney Indentation, 1 min at 77° F (25°C) (ASTM F142): less than 0.120 in.
    - o. Static Dissipation (ASTM F150): between 10<sup>6</sup> Ω and 10<sup>9</sup> Ω.
    - p. Chemical Resistance (ASTM F925):
      - (13) 5% Acetic Acid: No Change
      - (14) 70% Isopropyl Alcohol: No Change
      - (15) Mineral Oil: No Change
      - (16) 5% Sodium Hydroxide: No Change
      - (17) 5% Hydrochloric Acid: No Change
      - (18) 5% Ammonia: No Change
      - (19) Bleach: No Change
      - (20) 5% Phenol: No Change
      - (21) Gasoline: No Change
      - (22) Sulfuric Acid: No Change

**Resilient Tile Flooring 09658**

(23) Kerosene: No Change

(24) Olive Oil: No Change

q. Ambient Noise Reduction, Sabin/ft<sup>2</sup> (ASTM C423): 0.10

r. Thermal Conductivity, BTU-in/hr-ft<sup>2</sup>-°F (ASTM C518): approximately 0.406

**K. Dodge-Regupol ECOstone Recycled Rubber Resilient Flooring:**

1. Roll Dimension [48" (1219mm) x 5/32" (4mm) standard] [48" (1219mm) x 1/4" (6mm) special] [48" (1219mm) x 3/8" (9.5mm) special].

a. Roll Weight [Specify 1.20 lb/ft<sup>2</sup> (4 kg/m<sup>2</sup>); or 1.50 lb/ft<sup>2</sup> (6 kg/m<sup>2</sup>); or 2.95 lb/ft<sup>2</sup> (10 kg/m<sup>2</sup>)].

b. Roll Length: 50 linear feet (15m)

2. Tile Dimension: [36" (914mm) x 36" (914mm) x 1/4" (6mm) or 5/32" (4mm)] [18" (457mm) x 18" (457mm) x 1/4" (6mm) or 5/32" (4mm)].

3. Colors: [Specify color from manufacturer's standard colors, or custom colors, or special logo/graphic inlays].

**4. Product Testing:**

h. Tensile Strength, lb/in<sup>2</sup> (ASTM D412): 150 min.

i. Flexibility, 1/4-inch mandrel (ASTM F137): pass

j. Static Load, 1000 lb/in<sup>2</sup> (ASTM F970): less than 0.025 in.

k. Coefficient of Friction (ASTM 2047): greater than 0.6

l. Chemical Resistance (ASTM F925):

(13) 5% Acetic Acid: No Change

(14) 70% Isopropyl Alcohol: No Change

(15) Mineral Oil: No Change

(16) 5% Sodium Hydroxide: No Change

(17) 5% Hydrochloric Acid: No Change

(18) 5% Ammonia: No Change

(19) Bleach: No Change

(20) 5% Phenol: No Change

(21) Gasoline: Slight Change

(22) Sulfuric Acid: No Change

(23) Kerosene: Slight Change

(24) Olive Oil: No Change

m. Ambient Noise Reduction, Sabin/ft<sup>2</sup> (ASTM C423): 0.05

n. Thermal Conductivity, BTU-in/hr-ft<sup>2</sup>-°F (ASTM C518): approximately 0.445

**L. Dodge-Regupol ECOearth Recycled Rubber Resilient Flooring:**

1. Roll Dimension [48" (1219mm) x 5/32" (4mm) standard] [48" (1219mm) x 1/4" (6mm) special] [48" (1219mm) x 3/8" (9.5mm) special].

**Resilient Tile Flooring 09658**

- a. Roll Weight [Specify 1.20 lb/ft<sup>2</sup> (4 kg/m<sup>2</sup>); or 1.50 lb/ft<sup>2</sup> (6 kg/m<sup>2</sup>); or 2.95 lb/ft<sup>2</sup> (10 kg/m<sup>2</sup>)].
  - b. Roll Length: 50 linear feet (15m)
2. Tile Dimension: [36" (914mm) x 36" (914mm) x ¼" (6mm) or 5/32" (4mm)] [18" (457mm) x 18" (457mm) x ¼" (6mm) or 5/32" (4mm)].
3. Colors: [Specify color from manufacturer's standard colors, or custom colors, or special logo/graphic inlays].
4. Product Testing:
- h. Tensile Strength, lb/in<sup>2</sup> (ASTM D412): 150 min.
  - i. Flexibility, ¼-inch mandrel (ASTM F137): pass
  - j. Static Load, 1000 lb/in<sup>2</sup> (ASTM F970): less than 0.025 in.
  - k. Coefficient of Friction (ASTM 2047): greater than 0.6
  - l. Chemical Resistance (ASTM F925):
    - (13) 5% Acetic Acid: No Change
    - (14) 70% Isopropyl Alcohol: No Change
    - (15) Mineral Oil: No Change
    - (16) 5% Sodium Hydroxide: No Change
    - (17) 5% Hydrochloric Acid: No Change
    - (18) 5% Ammonia: No Change
    - (19) Bleach: No Change
    - (20) 5% Phenol: No Change
    - (21) Gasoline: Slight Change
    - (22) Sulfuric Acid: No Change
    - (23) Kerosene: Slight Change
    - (24) Olive Oil: No Change
  - m. Ambient Noise Reduction, Sabin/ft<sup>2</sup> (ASTM C423): 0.05
  - n. Thermal Conductivity, BTU-in/hr-ft<sup>2</sup>-°F (ASTM C518): approximately 0.445
- M. Dodge-Regupol ECOpave Recycled Rubber Resilient Flooring:
5. Thickness:
- d. Interlocking "dog-bone shaped" paver:
    - (3) Thickness: [Specify 7/8" (22.2mm) or 1 ¾" (44mm)].
    - (4) Weight: [Specify 1.25 lb/ft<sup>2</sup> (6kg/m<sup>2</sup>) or 2.50 lb/ft<sup>2</sup> (12 kg/m<sup>2</sup>)].
  - e. Rectangular Tile:
    - (3) Thickness: [Specify 5/8" (15.9mm) or 1 ¼" (32mm)].
    - (4) Weight: [Specify 2.5 lb/ft<sup>2</sup> (12kg/m<sup>2</sup>) or 4.9 lb/ft<sup>2</sup> (24 kg/m<sup>2</sup>)].
  - f. Embossed Square Tile
    - (3) Thickness: [Specify 5/8" (15.9mm) or 1 ¼" (32mm)].



**Resilient Tile Flooring 09658**

(4) Weight: [Specify 4.9 lb/ft<sup>2</sup> (24 kg/m<sup>2</sup>) or 9.8 lb/ft<sup>2</sup> (48 kg/m<sup>2</sup>)].

6. Shape:

- d. Interlocking “dog-bone shaped” paver: [Specify 7 ¾” x 6 ¼” x 4 ½” (197mm x 159mm x 114mm)].
- e. Rectangular Tile: [Specify 3.28’ x 1.64’ (1000mm x 500mm)].
- f. Embossed square paver tile: [Specify 2’ x 2’ (610mm x 610 mm)].

7. Colors: [Specify color from manufacturer’s standard colors.].

8. Product Testing:

- c. Tensile Strength, lb/in<sup>2</sup> (ASTM D412): 200 min.
- d. Coefficient of Friction (ASTM 2047): greater than 0.6

## 2.02 PRODUCT SUBSTITUTIONS

B. Substitutions: No substitutions permitted.

## 2.03 RELATED MATERIALS

A. Related Materials: Refer to other sections listed in Related Sections paragraph herein for related materials.

## 2.04 SOURCE QUALITY

A. Source Quality: Obtain recycled rubber resilient flooring materials from a single manufacturer.

## PART 3 – EXECUTION

### 3.01 MANUFACTURER’S INSTRUCTIONS

B. Compliance: Comply with manufacturer’s product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

### 3.02 EXAMINATION

B. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer’s instructions.

### 3.03 PREPARATION

B. Surface Preparation: [Specify applicable product preparation requirements.].

### 3.04 ERECTION/INSTALLATION/APPLICATION/CONSTRUCTION

- D. Recycled Rubber Flooring Installation: Comply with Dodge-Regupol Installation Manual for procedures and techniques for recycled rubber resilient flooring installation.
- E. Finish Color/Textures/Patterns: [Specify installation finishes coordinated with finishes specified in Part 2 Products.].
- F. Related Products Installation: Refer to other sections listed in Related Sections paragraph herein for related products installation.

### 3.05 FIELD QUALITY REQUIREMENTS

B. Manufacturer's Field Services: Upon Owner's request, provide manufacturer's field service consisting of product use recommendations and periodic site visit for inspection of product installation in accordance with manufacturer's instructions.

- 2. Site Visits: [Specify number and duration of periodic site visits.].

**Resilient Tile Flooring 09658**

3.06 CLEANING

- B. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove construction debris from project site and legally dispose of debris.

3.07 PROTECTION

- B. Protection: Protect installed product and finish surfaces from damage during construction.

3.08 SCHEDULES

- A. Schedules: [Specify reference to applicable schedules.].

**END OF SECTION**