**Altro Ollero**

**Rubber flooring tiles**

**SECTION 09 65 19.23**

**RESILIENT TILE FLOORING**

**(Recycled rubber tile)**

PART 1 GENERAL

1.01 SUMMARY

A. This Section includes: Recycled rubber tile flooring.

B. Conform with requirements of all Sections of Division 1, General Requirements, as it applies to the work of this Section.

1.02 RELATED SECTIONS

A. Section(s) related to this Section include:

1. 03 30 00 – Cast-in-Place Concrete

2. 06 10 00 – Rough Carpentry

3. 07 26 00 – Vapor Retarders

4. 09 62 00 – Athletic Flooring

5. 09 65 16 – Resilient Sheet Rubber Flooring

6. 09 65 13 – Resilient Base and Accessories

**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 referenced in this section.**

1.03 REFERENCES

A. General: 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 & Materials (ASTM):

1. ASTM C423 Standard Test Method for Sound Absorption, Noise Reduction Coefficient

2. ASTM C501 Standard Test Method for Relative Resistance to Wear of Rubber Tile by the Taber Abraser

3. ASTM D2047 Standard Test Method for Coefficient of Friction of Polish-Coated Floor Surfaces as Measured by the James Machine

4. ASTM D2240 Standard Test Method for Rubber Property-Durometer Hardness

5. ASTM D395B Standard Test Methods for Rubber Property-Compression Set

6. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Eastover’s –Tension

7. ASTM D5116 Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/Products. (V.O.C.)

8. ASTM E492 Standard Test Method for Impact Sound Transmission

9. ASTM E648-97 Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source

10. ASTM F137-03 Standard Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus

11. ASTM F150 Standard Test Method for Electrical Resistance of Conductive and Static Dissipative Resilient Flooring

12. ASTM F1914-98 Standard Test Method for Short-Term Indentation and Residual Indentation of Resilient Floor Covering

13. ASTM F925-97 Standard Test Method for Resistance to Chemicals of Resilient Flooring

14. ASTM F970-87 Standard Test Method for Static Load Limit

15. ASTM G21 Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi

16. Phillips Roll Chair Test Method for Numeric Rating of Surface Structure

17. Federal Standard 101B/NFPA 99 12-4.1.3.8 –Static Decay Test Method 4046

18. California Specification 01350 (CHPS Compliant for VOC Emissions) - -Emission tests are performed following California Dept. of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, CA/DHS/EHLRB/R-174, 07/15/04

C. Resilient Floor Covering Institute (RFCI)

1. RFCI

D. American Concrete Institute

1. ACI 302.1R

2. ACI 302.2R

1.04 SYSTEM DESCRIPTION

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

1.05 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 information, for specified products.

C. Shop Drawings: Submit shop drawings showing layout, profiles and product components, including drain details, 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. Manufacturer’s Instructions: Current published manufacturer’s installation and maintenance instructions.

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

1. 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. 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. QUALITY ASSURANCE

 Installer Qualifications: Experienced in performing work of this section and who is specialized in the

installation of work similar to that required for this project. Installation of Altro Ollero should follow the instructions detailed in the Altro Ollero Installation Guide.

1. Training: Installer who has attended an Altro installation training clinic.

**Specifier Note: Retain paragraph below for erected assemblies required for review of construction, coordination of work of several sections, testing or observation of operation.**

B. Mock-ups: Install at project site a job mock-up using acceptable products and manufacturer approved installation methods, including concrete substrate testing. Obtain Owner and Consultant’s acceptance of finish color, texture and pattern, and workmanship standards.

**Specifier Note: Edit paragraph below to specifying 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.

C. Pre-installation Meeting: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer’s installation instructions and manufacturer’s warranty requirements.

1.07 DELIVERY, STORAGE & HANDLING

A. Ordering: Comply with manufacturer’s ordering instructions and lead time requirements to avoid construction delays.

B. Deliver materials in manufacturer’s original, unopened, undamaged wrapping and/or containers with identification labels intact clearly marking edge type, thickness, percentage of speckle and shade of color(s).

C. Inspect all deliveries to ensure undamaged goods, and for accurate product type for thickness, edge type, color and speckle. Contact manufacturer immediately if product is damaged or inconsistent with order specifications.

D. Carefully handle all materials and store protected from exposure to harmful weather and at temperature conditions recommended by the manufacturer. Remove pallet banding if long-term storage is required, but leave other packaging intact until acclimations is to be started.

E. Flooring material and adhesive (if required) shall be acclimated to the installation area for a minimum of 24 hours prior to installation. See manufacturer’s installation guidelines for details on proper acclimation procedures. Longer acclimation may be required if product has been stored for extended time periods.

1.08 PROJECT CONDITIONS

1. Environmental Requirements/Conditions: In accordance with manufacturer's recommendations. areas to receive flooring shall be clean, level, dry, fully enclosed, weather tight with permanent HVAC set at a uniform temperature of at least 68F/20C degrees and less than 85F/30C continuously prior to, during and after installation, but for no less than 48 hours prior to and during, and for no less than 48 hours after installation. The flooring material shall be conditioned in the same manner prior to installation.
2. Close spaces to traffic during rubber flooring installation and for a period of time after installation as recommended in writing by the manufacturer.
3. Install rubber flooring materials and accessories after all other finishing operations, including painting, have been completed.
4. Where demountable partitions and other items are indicated for installation on top of sheet resilient flooring material, install flooring material before these items are to be installed.
5. Concrete substrates should not exceed 80 percent RH and/or 5 lbs. X 24 hrs. X 1000 sf. moisture vapor emissions rate tested in accordance to ASTM F 2170 and ASTM F 1869.

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

1.09 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.

1. Warranty Period: 10 years commencing on Date of Substantial Completion.

2. Altro Ollero product warranty reduces to 5 years when installed in ice arenas due to ice skate blades. Altro only covers and recommends 10mm and 12mm Altro Ollero in these areas.

**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.**

**Specifier Note: All imperial dimensions are approximate; products are manufactured to exact metric standards.**

2.01 ALTRO OLLERO

1. Manufacturer: Altro

1. USA: 80 Industrial Way, Wilmington, MA 01887
Toll-free: 800.377.5597 Fax: 978.694.0433

2. CANADA: 6221 Kennedy Road Unit 1, Mississauga, ON, L5T 2S8
Toll-free: 800.565.4658 Tel: 905.564.1330 Fax: 905.564.0750

3. E-mail: support@altrofloors.com Web Site: [www.altrofloors.com](http://www.altrofloors.com).

**Specifier Note: Select material to suit project requirements.**

1. Edge finish and product size shall be (Enter specified selection)
	* 1. Square (38” x 38”)​
		2. Interlocking (37” x 37”)​
2. Thickness shall be (Enter specified selection)
	* 1. Choose from: 4mm, 8mm, 10mm, and 12mm

b. Check color listing below for thickness availability

1. Color(s) of product shall be (Enter specified selection)
	* 1. Piazza

a. Square mat (4mm OS410) (8mm OS810) (10mm OS1010) (12mm OS1210)

b. Interlocking mat (8mm OL810) (10mm OL1010) (12mm OL1210)

* + 1. Arctic

a. Square mat (4mm OS402) (8mm OS802) (10mm OS1002) (12mm OS1202)

b. Interlocking mat (8mm OL802) (10mm OL1002) (12mm OL1202)

* + 1. Mineral

a. Square mat (4mm OS419) (8mm OS819) (10mm OS1019) (12mm OS1219)

b. Interlocking mat (8mm OL819) (10mm OL1019) (12mm OL1219)

* + 1. Ebony

a. Square mat (4mm OS401) (12mm OS1201)

b. Interlocking mat (12mm OL1201)

* + 1. Lunar

a. Square mat (4mm OS412) (8mm OS812) (10mm OS1012) (12mm OS1212)

b. Interlocking mat (8mm OL812) (10mm OL1012) (12mm OL1212)

* + 1. Canvas

a. Square mat (4mm OS404) (8mm OS804) (10mm OS1004) (12mm OS1204)

b. Interlocking mat (8mm OL804) (10mm OL1004) (12mm OL1204)

* + 1. Adobe

a. Square mat (4mm OS420) (8mm OS820) (10mm OS1020) (12mm OS1220)

b. Interlocking mat (8mm OL820) (10mm OL1020) (12mm OL1220)

* + 1. Kiln

a. Square mat (4mm OS411) (8mm OS811) (10mm OS1011) (12mm OS1211)

b. Interlocking mat (8mm OL811) (10mm OL1011) (12mm OL1211)

* + 1. Tranquil

a. Square mat (4mm OS416) (8mm OS816) (10mm OS1016) (12mm OS1216)

b. Interlocking mat (8mm OL816) (10mm OL1016) (12mm OL1216)

* + 1. Aqua

a. Square mat (4mm OS403) (8mm OS803) (10mm OS1003) (12mm OS1203)

b. Interlocking mat (8mm OL803) (10mm OL1003) (12mm OL1203)

* + 1. Electra

a. Square mat (4mm OS418) (8mm OS818) (10mm OS1018) (12mm OS1218)

b. Interlocking mat (8mm OL818) (10mm OL1018) (12mm OL1218)

* + 1. Aura

a. Square mat (4mm OS421) (8mm OS821) (10mm OS1021) (12mm OS1221)

b. Interlocking mat (8mm OL821) (10mm OL1021) (12mm OL1221)

* + 1. Wave

a. Square mat (4mm OS414) (8mm OS814) (10mm OS1014) (12mm OS1214)

b. Interlocking mat (8mm OL814) (10mm OL1014) (12mm OL1214)

* + 1. Zeal

a. Square mat (4mm OS422) (8mm OS822) (10mm OS1022) (12mm OS1222)

b. Interlocking mat (8mm OL822) (10mm OL1022) (12mm OL1222)

* + 1. Zen

a. Square mat (4mm OS405) (8mm OS805) (10mm OS1005) (12mm OS1205)

b. Interlocking mat (8mm OL805) (10mm OL1005) (12mm OL1205)

* + 1. Astro

a. Square mat (4mm OS417) (8mm OS817) (10mm OS1017) (12mm OS1217)

b. Interlocking mat (8mm OL817) (10mm OL1017) (12mm OL1217)

* + 1. Pantile

a. Square mat (4mm OS415) (8mm OS815) (10mm OS1015) (12mm OS1215)

b. Interlocking mat (8mm OL815) (10mm OL1015) (12mm OL1215)

* + 1. Flame

a. Square mat (4mm OS413) (8mm OS813) (10mm OS1013) (12mm OS1213)

b. Interlocking mat (8mm OL813) (10mm OL1013) (12mm OL1213)

* + 1. Ore

a. Square mat (4mm OS406) (8mm OS806) (10mm OS1006) (12mm OS1206)

b. Interlocking mat (8mm OL806) (10mm OL1006) (12mm OL1206)

* + 1. Oasis

a. Square mat (4mm OS409) (8mm OS809) (10mm OS1009) (12mm OS1209)

b. Interlocking mat (8mm OL809) (10mm OL1009) (12mm OL1209)

* + 1. Serene

a. Square mat (4mm OS407) (8mm OS807) (10mm OS1007) (12mm OS1207)

b. Interlocking mat (8mm OL807) (10mm OL1007) (12mm OL1207)

* + 1. Horizon

a. Square mat (4mm OS408) (8mm OS808) (10mm OS1008) (12mm OS1208)

b. Interlocking mat (8mm OL808) (10mm OL1008) (12mm OL1208)

D. Proprietary Accessory Products: Provide Altro accessories for use with Altro Ollero:

1. Adhesive: Altro one-component urethane adhesive for adhering flooring to substrate.

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

2.02 PRODUCT SUBSTITUTIONS

1. Substitutions: No substitutions permitted.
	* 1. SOURCE QUALITY
2. Source Quality: Obtain flooring products from a single manufacturer.

2.04 ADHESIVES

 1. Altro one-component urethane adhesive.

**PART 3 EXECUTION**

**Specifier Note: Article below is an addition to the CSI Section Format. 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 label instructions for installation.

3.02 EXAMINATION

* + 1. Inspect floor to be installed immediately upon arriving at job site; perform a moisture test.
		2. Do not begin installation until substrates have been properly prepared.
		3. If substrate preparation is the responsibility of another installer, notify Architect of

 unsatisfactory preparation before proceeding.

* + 1. The installation of the rubber flooring shall not begin until the work of all other trades has

been completed, particularly wet and overhead trades; sheet rock work, sanding and painting.

* + 1. Areas to receive flooring shall be adequately lighted during all phases of the installation

 process.

3.03 PREPARATION

A. Ensure that substrate is dry and clean, and shall be free of depressions, raised areas or other defects that might telegraph through installed flooring.

B. Ensure that concrete or plywood substrate is flat and uniformly sloped. Allowable variations in substrate levels are +/- 1/8” in 10’-0” and 1/4” total maximum variation from levels shown.

C. Concrete Substrates: The Contractor shall verify to the Owner and installer a minimum of 30 days prior to the scheduled resilient flooring installation the following substrate conditions. All substrate testing shall be documented and submitted to the Architect and Owner before commencement of the flooring installation.

* + - 1. Verify that substrates are dry, free of debris, and that all curing compounds, sealers, and hardeners have properly cured.
			2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
			3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
			4. Moisture Testing: Perform tests recommended by manufacturer and as follows. Proceed with installation only after substrates pass testing.

**Specifier Note: Coordinate Article below with manufacturer’s recommended installation details and requirements.**

3.04 INSTALLATION

A. Do not proceed with floor surfacing installation until all applicable site work, including substrate preparation, painting, equipment installation and other relevant work by trades affecting the installation area, has been completed.

1. Install all products in accordance with the manufacturer’s Installation Guidelines.

**Specifier Note: Coordinate Article below with Division 1 Quality Assurance and Quality Control Sections.**

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 visits 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 & MAINTENANCE

A. If installers have left any adhesive residue on the rubber flooring, contact manufacturer to determine possible solutions for removal. Do not use mineral spirits to clean adhesive off the tiles.

B. Initial Cleaning: After completion of installation and before acceptance by owner, perform the cleaning operations as prescribed in the manufacturer’s Installation/Maintenance Guidelines.

C. Maintenance: Comply with manufacturer’s instructions for proper cleaning and maintenance of the products.

3.07 PROTECTION

A. Protect the installed surface from damage resulting from subsequent construction activity on the site using craft paper, plastic sheet or other appropriate means.

B. Touch-Up: Repair any minor damage to eliminate all evidence of repair. Remove and replace work which cannot be satisfactorily repaired.

1. If recommended for this project, apply recommended sealer following manufacturer’s

guidelines.

----------------------------------------------------------- END OF SECTION -----------------------------------------------------------