

SECTION 03 52 16 {03521}

LIGHTWEIGHT INSULATING CONCRETE

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This section includes lightweight aggregate insulating Portland Cement concrete fill used primarily as topping for achieving sloped roof deck surfaces for drainage. Do not expose this material to moisture or weather. Roof vents for venting may be required for lightweight aggregate system; when required they may be specified in conjunction with roofing system; coordinate and edit accordingly.

This section can be edited to provide composite concrete and insulating deck covering or for air foaming of concrete for lightness.

Manufacturers listed in this section were identified as representative and not as an endorsement for meeting this specification. For additional product information, visit 4Specs at www.4specs.com, ARCAT at www.arcat.com, First Source at www.reedfirstsource.com, SpecSource at www.specsource.com, and Sweets Network at products.construction.com.

This section includes performance, proprietary, and descriptive type specifications. Edit to avoid conflicting requirements.

Contact the CSRF Support Center at supportcenter@csrf.org to submit comments or suggestions for improvements to this specification. Visit the SPECTEXT web site at www.spectext.com for current product announcements.

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes insulating concrete fill over structural roof decking; and perimeter joint filler.
- B. Related Sections:
 - 1. Section [03 41 00 - Precast Structural Concrete:] [03 41 13 - Precast Concrete Hollow Core Planks:] Grouting of precast concrete roof framing members.
 - 2. Section 07 95 00 - Expansion Control.
 - 3. Section [_____-_____]: Roofing system.
 - 4. Section [_____-_____]: Wood blocking, curbs.
 - 5. Section [_____-_____]: Structural roof deck.
- C. Related Sections:
 - 1. Section [_____-_____]: Structural roof deck.
 - 2. Section [03410 - Plant-Precast Structural Concrete:] [03415 - Precast Concrete Hollow Core Planks:] Grouting of precast concrete roof framing members.
 - 3. Section 05810 - Expansion Joint Cover Assemblies.
 - 4. Section [_____-_____]: Wood blocking, curbs.

5. Section [_____ - _____]: Roofing system.

1.2 REFERENCES

List reference standards included within text of this section. Edit the following for Project conditions.

- A. ASTM International:
1. A185/A185M-07 Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.
 2. ASTM C138/C138M - Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete.
 3. ASTM C150 - Standard Specification for Portland Cement.
 4. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
 5. ASTM C332 - Standard Specification for Lightweight Aggregates for Insulating Concrete.
 6. ASTM C495 - Standard Test Method for Compressive Strength of Lightweight Insulating Concrete.
 7. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

1.3 PERFORMANCE REQUIREMENTS

Use this article carefully; restrict statements to identify system performance requirements or function criteria only. Include the following performance statement only when thickness of installed product is NOT indicated.

- A. Average Thermal Resistance of Installed Fill: [As indicated on Drawings] [or] R of [_____]
(RSI of [_____]).

1.4 SUBMITTALS

Only request submittals needed to verify compliance with Project requirements.

- A. Section 01 33 00 - Submittal Procedures {01330 - Submittal Procedures}: Submittal procedures.
- B. Shop Drawings: Indicate layout of slopes, drain locations, and interruptions.
- C. Product Data: Submit physical characteristics, thermal values, product limitations and [_____].
- D. Manufacturer's Installation Instructions: Indicate mix instructions.
- E. Certificates: Certify [Products] [_____] meet or exceed [specified requirements] [_____]
[for [density] [indicated thicknesses] [thermal value and performance]].