Atlas Molded Products, a Division of Atlas Roofing Corporation April 29, 2021

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Product Guide Specification

Use this specification as the basis for developing a project specification. Edit highlighted areas as necessary in compliance with project design requirements. Remove unnecessary highlighted items.

Section must be carefully reviewed and edited by Architect/Design Professional to meet requirements of project and local building code.

Coordinate this section with drawings and other specification sections; coordinate these numbers and titles with sections included for specific project.

SECTION 07 2100 – THERMAL INSULATION

# - GENERAL

## SECTION INCLUDES

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Note to Specifier:

Edit the following list of related requirements for the project and coordinate for consistent use of sections numbers and titles. List and other sections with work directly related to work of this section.:

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#### Rigid Insulation used in below-grade,perimeter foundation,andbelow-slab applications.

## REFERENCE STANDARDS

#### ASTM International - American Society for Testing and Materials; www.astm.org:

##### ASTM C578 – Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.

#### ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

#### Underwriters Laboratories (UL) www.ul.com

#### UL 723 – Standard for Test for Surface Burning Characteristics of Building Materials

#### [International Code Council (ICC) Evaluation Service (ES); [www.icc-es.org](http://www.icc-es.org)]

#### [ICC-ES AC239 – Acceptance Criteria for Termite-Resistant Foam Plastic.]

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Note to Specifier:

Include ICC-ES AC239 for project locations with exposure to termites. Coordinate with section 1.03, 2.04 and. Remove if project is not located in location with exposure to termites.

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## SUBMITTALS

#### Evaluation Reports:

#### ICC-ES or UL evaluation report including ASTM C578 Type specified.

#### [ICC-ES or UL report including AC239 recognition for termite resistance.]

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Note to Specifier:

1. Include ICC-ES AC239 for project locations with exposure to termites. Coordinate with section 1.02, 1.03, 2.04, and. Remove if project is not located in location with exposure to termites.

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#### EPS Environmental Product Declaration (EPD).

#### Manufacturer’s Qualification Statement.

#### Warranty Documentation: Submit manufacturer warranty document.

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Note to Specifier:

1.Submit copy of warranty to provide Architect and/or Owner the opportunity to verify warranty coverage complies with necessary requirements.

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## QUALITY ASSURANCE

#### Manufacturers Qualifications: Company specializing in manufacturing products specified in this section, with not less than [ten] years documented experience.

## DELIVERY, STORAGE, AND HANDLING

#### Store materials protected from exposure to harmful environmental conditions as recommended by manufacturer.

#### Deliver materials in original, unopened, undamaged containers with identification labels intact. Materials shall be labeled with ASTM C578 including Type(s).

#### Avoid prolonged exposure to sunlight; cover products with opaque tarp or keep inside original packaging.

#### Product should not be exposed to open flame or other ignition sources.

#### Product should not be exposed to organic solvents, petroleum products and their vapors. Examples include but not limited to are acetone, paint thinner, and gasoline.

#### Avoid exposure of product to temperatures exceeding 165 degrees F (74 degrees C).

#### Refer to manufacturers product Safety Data Sheet (SDS).

## WARRANTY

#### Manufacturer shall warrant rigid foam insulation for the life of the building on which it is originally installed as follows:

#### Thermal insulation value will not vary more than ten (10) percent below the published per inch R-Value.

#### Insulation will meet the physical performance requirements within ten (10) percent of the minimum requirements for Type(s) as indicated in compliance with ASTM C578.

# - PRODUCTS

## MANUFACTURER

#### Atlas Molded Products, a Division of Atlas Roofing Corporation.

#### Address: 8700 Turnpike Drive, Suite 400, Westminster, CO 80031

#### Phone: (855) 597-4427; Fax: (303) 428-2595

#### Website: [www.Atlasmoldedproducts.com](http://www.Atlasmoldedproducts.com)

#### Contact: [www.Atlasmoldedproducts.com/find-a-rep](http://www.Atlasmoldedproducts.com/find-a-rep)

#### Locations [www.Atlasmoldedproducts.com/contact](http://www.Atlasmoldedproducts.com/contact)

#### 5250 North Sherman Street, Denver, Colorado 80216, (800) 525-8697

#### 111 West Fireclay Ave, Murray, Utah 84107, (877) 775-8847

#### 13695 Mt. Anderson Street, Reno, Nevada 89506, (800) 444-9290

#### 4555 Olympic Way, Kingman, Arizona 86401, (928) 681-2800

#### Privada Misiones No. 1108, Tijuana, Baja California 22425, (866) 811-9517

#### 1004 Omar Road, Anthony, Texas 79821, (915) 886-4636

#### 3220 E. Avenue F, Arlington, Texas 76011, (817) 654-4688

#### 8240 Byron Center Ave SW, Michigan 49315, (800) 917-9138

#### 90 Trowbridge Drive, Fond du lac, Wisconsin 54937, (800) 236-5377

#### 701Sargent Drive, Fredericktown, Missouri 63645, (573) 783-4200

#### 1400 North 3rd Street, Kansas City, Kansas 66101, (866) 688-5758

#### 911 Industrial Drive, Perryville Missouri 63775, (800) 888-2332

#### 809 East 15th Street, Washington, Iowa 52353, (888) 633-6033

#### 2731 White Sulphur Road, Gainesville, Georgia 30501, (800) 533-2613

#### 445 Industrial Park Drive, Ridgeway, Virginia 24148, (800) 277-0967

## MATERIALS:

#### ThermalStar Insulation Board – Below Grade

## RIGID EXPANDED POLYSTYRENE (EPS) INSULATION FOR BELOW GRADE APPLICATIONS

#### Description: Expanded polystyrene (EPS) insulation without any facing material.

#### Compressive Resistance minimum at 10 percent deformation in accordance with ASTM D1621.

#### R-value per inch at 75 degrees F in accordance with ASTM C518.

#### Density minimum in accordance with ASTM D1622.

#### Flexural Strength minimum in accordance with ASTM C203.

#### Classification Types(s) in compliance with ASTM C578 and the following characteristics:

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Note to Specifier:

Select the specific Type(s) of rigid EPS insulation to be used on project from the following list of available characteristics, compressive and thermal resistance, and flexural strength.

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#### ThermalStar Insulation Board 10 - Type I

#### Compressive Resistance: 10 psi (69 kPa)

#### R-value: 3.9 per inch

#### Density 0.90lbs/ft3 (14.4 kg/m3)

#### Flexural Strength: 25 psi (172 kPa)

#### ThermalStar Insulation Board 15 - Type II

#### Compressive Resistance: 15 psi (103 kPa)

#### R-value: 4.2 per inch

#### Density 1.35lbs/ft3 (21.6 kg/m3)

#### Flexural Strength: 35 psi (241 kPa)

#### ThermalStar Insulation Board 25 - Type IX

#### Compressive Resistance: 25 psi (172 kPa)

#### R-value: 4.4 per inch

#### Density 1.80lbs/ft3 (28.8 kg/m3)

#### Flexural Strength: 50 psi (345 kPa)

#### ThermalStar Insulation Board 40 - Type XIV

#### Compressive Resistance: 40 psi (276 kPa)

#### Thermal Resistance: 4.4 per inch

#### Density 2.40lbs/ft3 (38.4 kg/m3)

#### Flexural Strength: 60 psi (414 kPa)

#### ThermalStar Insulation Board 60 - Type XV

#### Compressive Resistance: 60 psi (414 kPa)

#### R-value: 4.5 per inch

#### Density 2.85lbs/cu ft (45.7 kg/m3)

#### Flexural Strength: 75 psi (517 kPa)

#### Surface Burning: Class A with Flame Spread Index (FSI) of <25 and Smoke Developed Index (SDI) of <450 in accordance with ASTM E84 or UL723.

#### [Product in compliance with ICC-ES AC239].

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## ACCESSORIES

#### Insulation Fasteners and Adhesives: Provide one of the following for attachment of insulation.

#### Corrosion resistant mechanical insulation fasteners.

#### Polystyrene compatible adhesive.

#####  See [www.Atlasmoldedproducts.com](http://www.Atlasmoldedproducts.com) for Adhesive Compatibility technical bulletin.

# - EXECUTION

## INSTALLATION

#### Install insulation in accordance with manufacturers written installation instructions.

## CLEANING

#### Remove and legally dispose of waste materials and other construction debris.

#### Clean EPS insulation may be recycled through a national program; http://www.epsrecycling.org

## PROTECTION

#### Protect installed products from damage during subsequent construction.

END OF SECTION