**SECTION 07 21 13** – **BOARD INSULATION**

Alternatively, the text for each product may be cut & pasted into their general MasterFormat Sections if desired:

**SECTION 07 21 00** – **THERMAL INSULATION**

This specification has been prepared by Atlas Roofing Corporation for use in preparing a project specification covering EnergyShield® XR rigid board insulation in above-grade wall assemblies and below grade applications.

The following should be noted in using this specification:

Hypertext links to specific websites are included after manufacturer names and names of organizations whose standards are referenced within the text, to assist in product selection and further research. Hypertext links are contained in parenthesis and shown in blue, e.g.: [(www.astm.org](http://(www.astm.org))

Optional text requiring a selection by the user is enclosed within brackets and as red text, e.g.: “Color: [Red.] [Black.]"

For assistance on the use of the products in this section, contact Atlas Roofing Corporation by calling (800) 388-6134, or visit their website at [www.atlasrwi.com](http://www.atlasrwi.com).

1. **GENERAL**
	1. SUBMITTALS
		1. Action Submittals:
			1. Product Data.
			2. Evaluation Reports.
			3. Samples.
		2. Informational Submittals:
			1. Certificate of Compliance.
2. **PRODUCTS**
	1. APPLICATIONS
		* 1. Insulation used in [above-grade exterior wall] [below grade foundation wall] [perimeter wall] [under slab] application.
	2. MANUFACTURERS
		1. Basis of Design: EnergyShield XR polyisocyanurate (polyiso) rigid insulation by Atlas Roofing Corporation. [(www.atlasrwi.com](http://(www.atlasrwi.com))
		2. Substitutions: Not permitted.
	3. MATERIALS
		1. Board Insulation:

 Product: EnergyShield XR polyiso continuous insulation. ([wall.atlasrwi.com/energyshield-xr](https://wall.atlasrwi.com/energyshield-xr/))

 Description: ASTM C1289, Type 1, Class 1 & 2; closed cell polyisocyanurate foam core with durable facers on both sides.

* + - 1. Meets performance requirements per ASTM C578, Physical Properties Table 1 complying with Type IV.
			2. Flame Spread / Smoke Developed rating of foam core; Class A, Maximum 25 / 450 per ASTM E84 / UL 723.
			3. Fire Propagation Characteristics: Compliant with NFPA 285 testing as part of an approved wall assembly. ([DrJ TER 1306-03](https://www.atlasrwi.com/resource-folder/wall/Codes%20%26%20Testing/ter_1306-03.pdf))
			4. Solvent resistant: Yes.
			5. UV stable: Yes.
			6. Compressive strength: Minimum 25 PSI, tested to ASTM D1621.
			7. Moisture vapor transmission: Maximum 0.1 perm, tested to ASTM E96 desiccant method.
			8. Water absorption: Maximum 0.3 percent by volume, tested to ASTM C272.
			9. Qualify as weather resistive barrier per AC71 with sealed joints: Pass.
			10. Service temperature: Minus 100 to plus 250 degrees F.
			11. Free from CFCs, HCFCs, and HFCs.
			12. Global Warming Potential (GWP): Maximum 10.
			13. Recycled content: Minimum 10 percent.
			14. Mold resistance: UL 2824, Highly Resistant.
			15. Tested to UL 2818; UL GREENGARD Gold certified.
			16. Embodied Carbon: per EPD, less than 2.5 kg CO2 eq / m2 RSI.
			17. Thickness and insulation value: [0.75 inches, R-value 5.0.] [1.0 inch, R-value 6.5.] [1.2 inches, R-value 7.5.] [1.5 inch, R-value 10.0.] [2.0 inch, R-value13.1.] [2.4 inches, R-value 15.0.] [3.0 inches, R-value 19.1.] [3.5 inches, R-value 22.2.] [4.0 inches, R-value 26.0.]

1. **EXECUTION**
	1. INSTALLATION
		1. Install insulation in accordance with manufacturer’s instructions.

END OF SECTION