



CSI 07 21 00

PRODUCT: Foam Plastic Insulation

DIVISION: Thermal and Moisture Protection

SECTION: Thermal Insulation

Report Holder

OPCO, Inc.

**205 Harrison Avenue West
Latrobe, Pennsylvania 15650**

Manufacturing Locations

OPCO, Inc. (NTA Plant #666)

**205 Harrison Avenue West
Latrobe, Pennsylvania 15650**

1. SUBJECT

1.1 OPCORE® Expanded Polystyrene (EPS) Foam Plastic Insulation

1.2 OPCORE-G™ Graphite Polystyrene (GPS) Foam Plastic Insulation

2. SCOPE

NTA, Inc. has evaluated the above products for compliance with the applicable sections of the following codes:

2.1 2009 International Building Code (IBC)

2.1.1 Section 1508.2

2.1.2 Section 2603.3

2.2 2009 International Residential Code (IRC)

2.2.1 Section R403.3

2.2.2 Section R613.3.1

2.2.3 Section R906.2

NTA, Inc. has evaluated the above products in accordance with:

2.3 NTA IM 026.2 Expanded and Extruded Polystyrene Foam Plastic Insulation Evaluation

2.4 NTA IM 036 Quality System Requirements

NTA, Inc. has evaluated the following properties of the above products:

2.5 Performance values as specified in ASTM C578

2.6 Flame spread and smoke developed characteristics in accordance with ASTM E84

To obtain the most current NTA Listing Report, visit www.ntainc.com/report.

3. USES

3.1 General.

3.1.1 OPCORE and OPCORE-G insulation boards are foam plastic boards used as nonstructural thermal insulation in wall cavities and roof and floor assemblies. OPCORE is a registered trademark of OPCO, Inc. The OPCO logo and OPCORE-G are trademarks of OPCO, Inc.

3.1.2 OPCORE and OPCORE-G insulation boards may be used as the core of sandwich panels when the sandwich panels are specifically recognized in a current evaluation report.

3.2 Construction Types. OPCORE and OPCORE-G shall be considered combustible building elements when determining the Type of Construction in accordance with 2009 IBC Chapter 6. The use of OPCORE and OPCORE-G with exterior walls of buildings of Type I, II, III or IV of any height shall be approved by the authority having jurisdiction. (IM 026.2 ACU6)

3.3 Fire Resistive Assemblies. OPCORE and OPCORE-G shall be used as part of a fire rated assembly only when suitable evidence and details are submitted and approved by the authority having jurisdiction. (IM 026.2 ACU5)

4. DESCRIPTION

4.1 General. OPCORE and OPCORE-G are molded, closed-cell expanded polystyrene boards complying with ASTM C578 and have a flame-spread index not exceeding 25 and a smoke-developed index not exceeding 450 when tested at a thickness of 4 inches in accordance with ASTM E84. (IM 026.2 ACU1)

4.2 OPCORE EPS boards are manufactured at a minimum density of 0.90 pcf and comply with ASTM C578, Type I specification.

4.3 OPCORE-G GPS boards are manufactured at a minimum density of 0.90 and 1.15 pcf and comply with ASTM C578, Type I and Type VIII specifications.

This listing report is intended to indicate that NTA, Inc. has evaluated the product described and found it to be eligible for labeling. Product not labeled as specified herein is not covered by this report. NTA, Inc. makes no warranty, either expressed or implied, regarding the product covered by this report.

5. INSTALLATION

5.1 General. *OPCORE* and *OPCORE-G* shall be fabricated, identified and erected in accordance with this report, the approved construction documents and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report shall govern. Approved construction documents shall be available at all times on the jobsite during installation.

6. CONDITIONS OF USE

6.1 *OPCORE* and *OPCORE-G* as described in this report comply with the codes listed in Section 2 above, subject to the following conditions:

6.2 Product is produced and labeled in a manufacturing location identified in this report.

6.3 *OPCORE* and *OPCORE-G* shall be separated from the interior of a building by an approved thermal barrier of ½ inch gypsum wallboard or equivalent unless suitable evidence and details in accordance with 2009 IBC Section 2603.9 are submitted and approved by the authority having jurisdiction. (IM 026.2 ACU2)

6.4 *OPCORE* and *OPCORE-G* may be installed in cooler or freezer walls only where suitable evidence and details are submitted and approved by the authority having jurisdiction. (IM 026.2 ACU3)

6.5 Within an attic or crawl space where entry is made only for service of utilities, repairs or maintenance, *OPCORE* and *OPCORE-G* shall be protected by an ignition barrier in accordance with 2009 IBC Section 2603.4.1.6, 2009 IRC R316.5.3 or 2009 IRC R316.5.4. (IM 026.2 ACU4)

6.6 *OPCORE* and *OPCORE-G* may be used as part of a roof-covering assembly only where suitable evidence and details are submitted and approved by the authority having jurisdiction. (IM 026.2 ACU7)

7. EVIDENCE SUBMITTED

NTA, Inc. has examined the following evidence to evaluate this product:

7.1 Review of each plant's quality assurance manual and inspection of manufacturer's production facility in accordance with NTA IM 036.

7.2 Qualification test data in accordance with NTA IM 026.2 Standard Evaluation Plan 01 (SEP 01).

7.3 Periodic quality assurance audits of the production facility.

7.4 Periodic verification testing in accordance with NTA IM 026.2

Evaluation evidence and data are on file with NTA, Inc. NTA, Inc. is accredited by the International Accreditation Service (IAS) as follows:

ISO 17020 Inspection Agency (AA-682)

ISO 17025 Testing Laboratory (TL-259)

ISO 17065 Product Certification Agency (PCA-102)

The scope of accreditation related to testing, inspection or product certification pertain only to the test methods and/or standard referenced therein. Design parameters and the application of building code requirements, such as special inspection, have not been reviewed by IAS and are not covered in the accreditation. Product evaluations are performed under the direct supervision of Professional Engineers licensed in all jurisdictions within the United States as required by the building code and state engineering board rules.

8. FINDINGS

All products referenced herein are manufactured under an in-plant Quality Assurance program to ensure that the production quality meets or exceeds the requirements of the codes noted herein and the criteria as established by NTA, Inc. Furthermore, product must comply with the conditions of this report.

This report is subject to annual review.

This listing report is intended to indicate that NTA, Inc. has evaluated the product described and found it to be eligible for labeling. Product not labeled as specified herein is not covered by this report. NTA, Inc. makes no warranty, either expressed or implied, regarding the product covered by this report.

9. IDENTIFICATION

Each eligible product shall be permanently marked to provide the following information:

- 9.1 The NTA, Inc. listing mark
- 9.2 Manufacturer's name or Trademark
- 9.3 ASTM C578 Type
 - 9.3.1 *OPCORE*: Type I
 - 9.3.2 *OPCORE-G*: Type I or VIII
- 9.4 Minimum R-Value
 - 9.4.1 *OPCORE* or *OPCORE-G* (Type I): 3.6
 - 9.4.2 *OPCORE-G* (Type VIII): 3.8
- 9.5 Flame Spread Index less than 25
- 9.6 Smoke Developed Index less than 450



Table 1: Recognized Product Performance

Product Name	ASTM C578 Specification	Flame Spread Index / Smoke Developed Index
<i>OPCORE</i>	Type I	< 25 / 450 ^a
<i>OPCORE-G</i>	Type I, VIII	< 25 / 450 ^b

^aFlame spread and smoke developed values recorded while material remained in the original test position. Ignition of molten residue on the furnace floor resulted in flame travel equivalent to calculated flame spread index of 65 and smoke developed index of 550

^bFlame spread and smoke developed values recorded while material remained in the original test position. Ignition of molten residue on the furnace floor resulted in flame travel equivalent to calculated flame spread index of 90 and smoke developed index of 550

This listing report is intended to indicate that NTA, Inc. has evaluated the product described and found it to be eligible for labeling. Product not labeled as specified herein is not covered by this report. NTA, Inc. makes no warranty, either expressed or implied, regarding the product covered by this report.

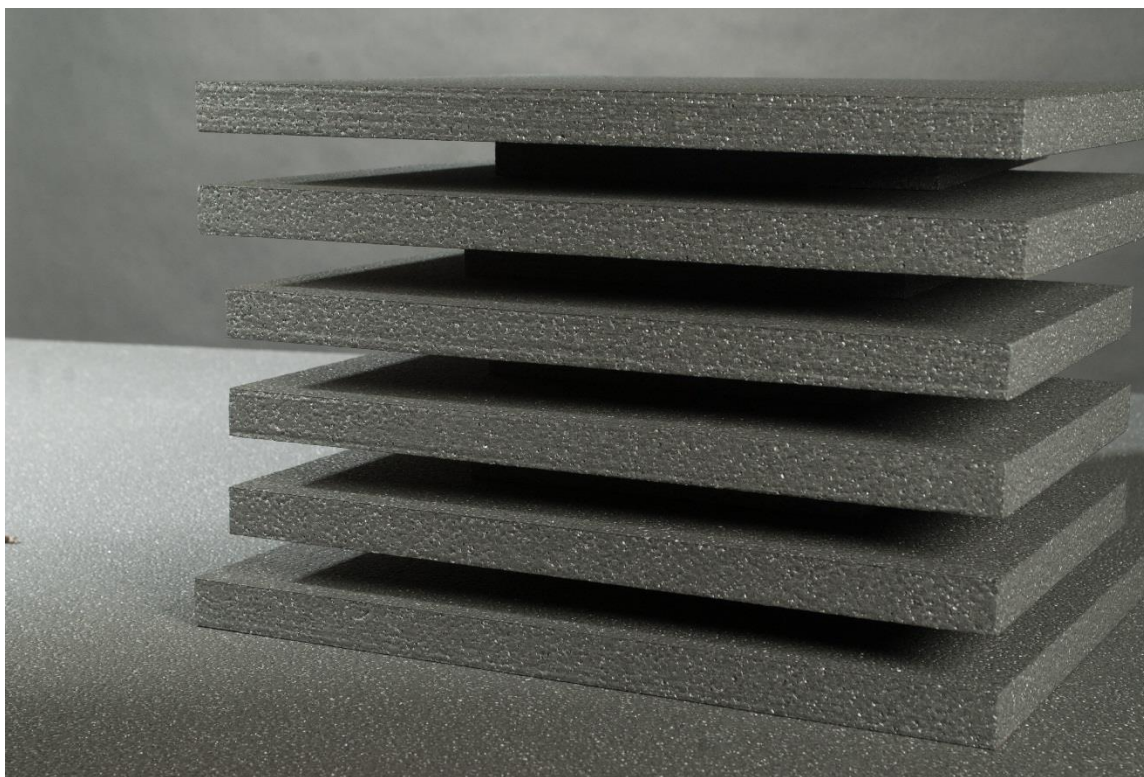


Figure 1: OPCORE-G GPS Foam

This listing report is intended to indicate that NTA, Inc. has evaluated the product described and found it to be eligible for labeling. Product not labeled as specified herein is not covered by this report. NTA, Inc. makes no warranty, either expressed or implied, regarding the product covered by this report.

NTA, INC. • 305 NORTH OAKLAND AVE • PO BOX 490 • NAPPANEE, INDIANA 46550
WWW.NTAINC.COM

PHONE: 574.773.7975
FAX: 574.773.2260

