

## SECTION 072000

### BOARD INSULATION

#### PART 1

#### GENERAL

##### 1.1 DESCRIPTION

- A. Work of this section, as indicated on the drawings and specified herein, pertains to the fabricating, furnishing and installing of cellular glass insulation board for use as thermal barrier in walls, roofs and any other locations indicated in the documents.

##### 1.2 REFERENCES

- A. The minimum standards for products specified in this section shall be including as under but not limited to the following. Except as otherwise specified herein, perform work in accordance with specifications, codes and standards cited therein, and their latest applicable addenda and supplements. Where there is conflict between the reference standards the most stringent of the conditions/requirements shall be applicable.
- B. American Society for Testing and Materials - ASTM:
  - C165/240/522 - compressive strength
  - C177/518 - thermal conductivity
  - C240 - absorption of moisture
  - C303 - density
  - E84 - flame spread and smoke development
  - E96 - water-vapor permeability
  - E136 - combustibility
- C. European Norm, according EN13167 - EN:
  - EN1602 - density
  - EN12667/12939 - thermal conductivity
  - EN13501-1 - reaction to fire
  - EN826 - compressive strength
  - EN1609/12087 - water absorption
  - EN12086 - water vapor transmission

##### 1.3 SUBMITTALS

- A. The following Submittals shall be submitted.
  - 1. Product data and samples.
  - 2. Method of installation
  - 3. EPD Environment Product Declaration according ISO14025

##### 1.4 WARRANTY

- A. Provide a warranty of 20 for not absorbing moisture, retaining insulation performance and dimensional stability under normal conditions and use.

#### PART 2

#### PRODUCTS

##### 2.1 PRODUCTS SUPPLIERS AND MANUFACTURERS

- A. Pittsburgh Corning Europe N.V., Tessenderlo - Belgium
- B. FOAMGLAS® Dubai, United Arab Emirates
- C. Or equal

## 2.2 MATERIALS

- A. **Insulation for interior application on wall or ceiling** thickness according to the drawings or spec. Rigid cellular glass insulation board with following characteristics.
1. Type: FOAMGLAS® T4+ in slabs or boards or equivalent
  2. Density: 115kg/m<sup>3</sup>. ASTM C303, EN 1602
  3. Thermal conductivity at 10° C: 0.041W/mK, ASTM C-518/C177, EN 12667/12939/10456
  4. Compressive strength: >600 kPa, ASTM C165/C240/C552, EN 826
  5. Water Absorption: 0.2% (only moisture retained is that adhering to surface cells after immersion), ASTM C240, EN1609/12087
  6. Water vapor permeability shall be 0.0 (zero) per inch, ASTM E96
  7. Reaction to fire: Non-combustible, ASTM E136, Flame spread 0 (zero) and smoke development 0 (zero), ASTM E84. Euro class A1, EN13501
  8. Ecology: Produced with minimum recycling glass content of 60% and low emission to full fill environment requirement and enable LEED credits.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify substrate, adjacent materials, etc. are ready to receive insulation.
- B. Verify substrate and adjacent are ready to receive insulation. Are flat, free of honey comb, fins, irregularities and materials or substances that may impede adhesive bond and are free of matter detrimental to installation of uniform layer of insulation.

### 3.2 INSTALLATION

- A. **Application of interior wall and ceiling insulation:**

Follow the supplier recommendation. Apply the cellular glass slabs with cold adhesive PC® 56 3.5 kg/m<sup>2</sup>, which is spread onto the bedding face of the cellular glass slab using a notched trowel as well as on to the butt edges of the slab. The slabs are pressed to the substrate, staggered in parallel courses with sealed joints. Additional fixing should be used on ceiling/soffits 4 pc/m<sup>2</sup> and on wall 2 pc/m<sup>2</sup>. For direct rendering or suspended ceiling follow the supplier recommendation.

Finish with roughcast render on wall or ceiling:

Grind insulation surface and remove dust. Apply base coat PC® 164 3.5kg/m<sup>2</sup> with reinforcement mesh PC® 150. Finish coat with PC® 78 grad 3mm 4kg/m<sup>2</sup> (other grades are available on request) and work out desire texture.

Finish with plasterboard on wall

Grind insulation surface and remove dust. Apply plasterboard with cold adhesive PC® 56 2kg/m<sup>2</sup>. Additional work for the joint treatment should be done according to the recommendation of the plasterboard supplier.

Finish with facing wall or suspended ceiling:

Grind insulation surface and remove dust. Remove the squeezed out adhesive when slightly hardened. Seal every penetration of the insulation layer with sealant in any humidity sensitive area.

### 3.3 PROTECTION OF INSTALLED CONSTRUCTION

- A. Do not permit work to be damaged prior to covering insulation.

## END OF SECTION