CASTLE
Access Panels & Forms Inc.

# GLASS FIBER REINFORCED GYPSUM (FOR INTERIOR APPLICATIONS)

# GFRG SPECS

## 1.0 General

1.1 Scope:

Furnish all materials, labor, equipment and related services necessary to supply and erect Castle Access Panels & Forms GFRG units as indicated in the contract documents and in compliance with local codes.

1.2 Related Sections:

1. Section 03490 – Glass Fiber Reinforced Concrete
2. Section 04720 – Cast Stone
3. Section 05500 – Metal Fabrications
4. Section 06100 – Rough Carpentry
5. Section 06610 – Glass Fiber Reinforced Plastic Fabrications
6. Section 09900 – Paints and Coatings

1.3 Responsibility:

The gypsum drywall contractor shall install and tape the work under this section and will be responsible for coordinating the installation with gypsum drywall work and other trades.

1.4 Manufacturers:

**CASTLE ACCESS PANELS & FORMS Inc.**
**135 Wendell Ave, North York**
**ON, M9N 3K9, Canada**
**Phone: (905) 738-8089**
**www.castleaccesspanels.com**

1.5 Samples and Submittals:

1. Submit under provisions of Section 01300.
2. Product Data: Manufacturer's data sheets on each product to be used, including dimensions, finishes, storage and handling requirements and recommendations, and installation recommendations.
3. Shop Drawings: Provide drawings showing dimensions, joint details.
4. Samples: Two samples, minimum size 6 inches (150 mm) square, representing actual product, color and patterns.

1.6 Substitutions:

1. Not permitted
2. Request for substitutions will be considered in accordance with provisions of Section 01600

## 2.0 Products

2.1 Materials:

A. Castle Access Panels & Forms GFRG units shall be prefabricated with high-density gypsum, reinforced with continuous random filament glass fiber mat and structural reinforcing as required per ASTM C1381 and ASTM C1355.

1. Glass Content: 5 to 6 percent by weight
2. Density: 103 to 112 pcf
3. Shell Thickness: 1/4 to 3/8-inch (6 to 10 mm) nominal
4. Flammability: Flame Spread Index of 0 (Per ASTM E84 and ASTM E136)
   Smoke Development Index of 0 (Per ASTM E84 and ASTM E135)
5. Flexural Strength: 3000-4000 PSI (Per ASTM C947)
6. Compressive Strength: 7600 PSI
7. Coefficient of Linear Thermal Expansion per ASTM D696
8. Humidified Deflection: 1/8” (3 mm) (Per ASTM C473)
9. Hardness (Barcol) No Less Than 75 (Per ASTM D2583)
10. Impact Resistance 8.0 ft.-lb./in.2 (Per ASTM D256)

2.2 Tolerances:

| | |
|---|---|
| Dimensional – all directions | +/- 1/8” |
| Thickness – skin | +/- 1/8” |
| Thickness – total unit | +/- 1/8” |
| Warpage or bowing | +/- 1/16” per ft. |

Draft Angle: 3 degrees, minimum, on returns, setbacks, revels, and grooves.

## 3.0 Execution

3.1 Examination:

1. Do not begin installation until substrates have been properly constructed; verify that substrates are plumb and true.
2. If substrate preparation is responsibility of another installer, notify architect of unsatisfactory conditions before proceeding.
3. Check field dimensions before beginning installation.

3.2 Preparation:

1. Clean surface thoroughly prior to installation.
2. Prepare surfaces using methods recommended by the manufacturer for achieving the best result for the substrate under project conditions.
3. Install supplementary and permanent supports as required for proper installation.

3.3 Installation:

1. Install in accordance with applicable code and manufacturer's recommendations, plumb and true to line, shim where necessary.
2. Coordinate work with related gypsum wallboard work.
3. Join pieces with cemented butt joints except at control and expansion joints.
4. Provide expansion joints where moving joints in substrate occur.
5. Finish joints as specified for adjacent gypsum board work in Section 09260.
6. Finish joints and surfaces as required for Level 5 in ASTM C 840 and C1467.

3.4 Protection:

1. Protect installed products until completion of project.
2. Touch-up, repair or replace damaged products before substantial completion.

# END OF SECTION