

## Fire Testing Report Summary

Innovation MgO 1/2" Wall Panels have been independently evaluated and approved to the following fire testing standards:

### Flame & Smoke Development Index

- ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials (10 min Tunnel Test), ASTM International
- ASTM E2768-11 (Reapproved 2018), Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30 min Tunnel Test), ASTM International

Results:

- Nonflammable Class A1 Fire-Rated
- Flame Spread Index 0 - 25; Smoke-Developed Index of 0 - 450
- ICC-ES Listing: <https://icc-es.org/report-listing/esl-1596/>

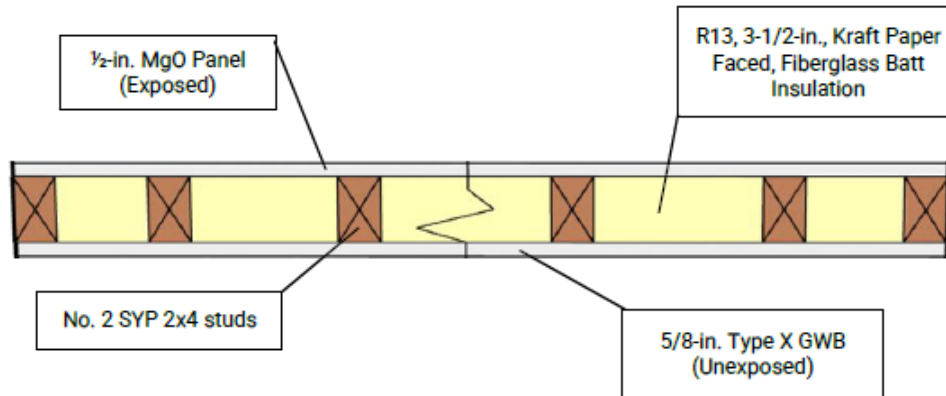
### Fire-Rated Assemblies

- ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials, ASTM International

Results:

- ICC-ES Listing: <https://icc-es.org/report-listing/esl-1610/>

## 1-Hour Fire Rating with Wood Studs

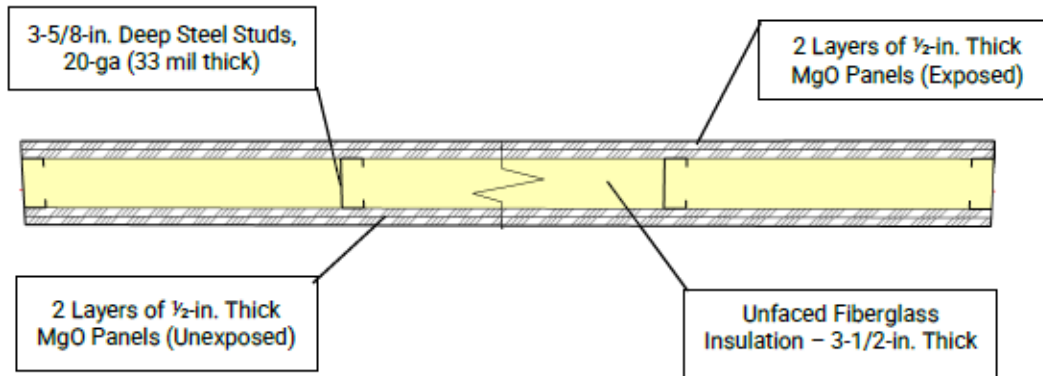


### 1-h Test (2 Design Listings Recommended - One for Steel and one for Wood):

1. Allowance for any larger studs than tested.
2. Allowance for stud spacing to be closer than tested.
3. Allowance for non-load-bearing or load-bearing wall assemblies.
4. Allowance for one layer of 5/8 in. type X GWB to replace the 1/2 in. MgO on the interior side.
5. Allowance for greater R-Value fiberglass insulation than tested or mineral wool to be used in stud cavities.
6. Allowance for any additional materials such as WRB, exterior insulations, and claddings over 1/2 in. MgO sheathing.
7. Steel Studs Design Listing with the same allowances as requested in Items 1-5.

All fastening of sheathing should be the same as tested on both the interior and the exterior sides of the assembly.

## 2-Hour Fire Rating with Metal Studs



### 2-h Test (4 Design Listings Recommended - Two for Steel and two for Wood):

2-h from the Interior Side (two layers of ½ in. MgO) and 1-h from the Exterior Side Design (One-layer ½ in. MgO):

1. Allowance for any larger studs than tested.
2. Allowance for stud spacing to be closer than tested.
3. Allowance for non-load-bearing or load-bearing wall assemblies.
4. Allowance for utilizing two layers of ⅝ in. type X GWB on the interior side as an option.
5. Allowance for greater R-Value fiberglass insulation than tested or mineral wool to be used in stud cavities.
6. Allowance for any additional materials such as WRB, insulations, and claddings over ½ in. MgO on the exterior side.
7. Nominal 2x4 Wood Stud Design Listing with the same allowances as requested in Items 1-6.

2-h from the Interior Side (two layers of ½ in. MgO) and 2-h from the Exterior Side Design (two layers of ½ in. MgO):

1. Use of US MgO with alternate framing types and spacing (Wood or Steel), stud cavity depths, and heavier cross-sections of metal framing members.
2. Use of US MgO in non-load-bearing partitions and load-bearing exterior walls with exterior cladding options.
3. Use of optional greater R-value fiberglass batt insulation or Mineral Wool batt cavity insulation.
4. Allowance for substituting a double layer of ⅝ in. type X GWB for the two layers of MgO for interior sheathing.
5. Nominal 2x4 Wood Stud Design Listing with the same allowances as requested in Items 1-4.

All fastening of sheathing should be the same as tested on both the interior and the exterior sides of the assembly.