

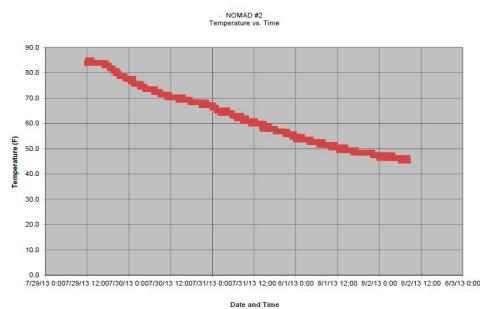
# TESTING INFORMATION

Holmes Testing Inc. of Wheeling, Illinois thermal tested Perma Form using an environmental chamber to simulate winter conditions. The door of an environmental chamber was removed and replaced with concrete filled Perma Form on the bottom half and a conventional 2x6 stud wall filled with fiberglass insulation on the top half. Outside the chamber, the average temperature was 72.5°F. Inside the chamber the temperature began at approximately 80°F and drastically decreased and held between -6°F and -7°F for the remainder of the test.

## INTERNAL WALL TEMPERATURE

PERMA FORM INSULATED CONCRETE FORMS COMPARED TO CONVENTIONAL 2x6 STUD WALLS WITH FIBERGLASS INSULATION

### CHART 1

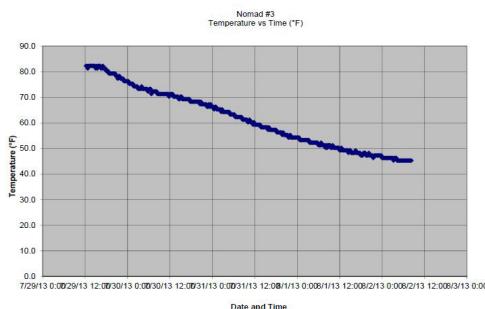


The sensor was in the center of the concrete wall not touching the interior wire structure.

#### TIME                    CORE TEMPS

6 hrs	84
12 hrs	78
90 hrs	46

### CHART 2

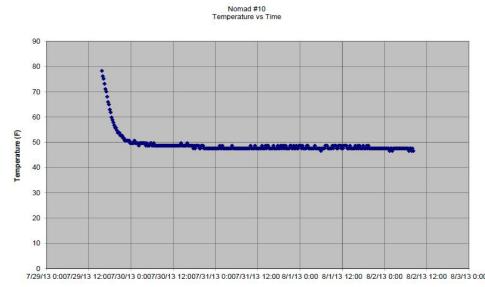


The sensor was tied to the interior wire structure in the concrete core against the EPS insulation on the -7°F side.

#### TIME                    CORE TEMPS

6 hrs	82
12 hrs	76
90 hrs	46

### CHART 3



The sensor was near the wall stud with blown-in fiberglass insulation.

#### TIME                    CORE TEMPS

6 hrs	65
12 hrs	50
90 hrs	47

Perma Form proves to match a standard insulated stud wall on long duration and will outperform conventional construction in normal temperature fluctuations.

# TESTING INFORMATION

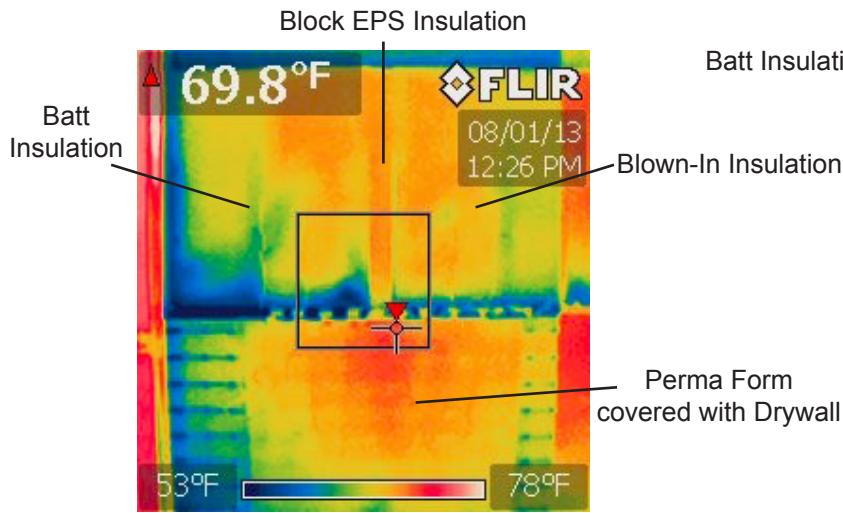
## SURFACE WALL TEMPERATURE

PERMA FORM INSULATED CONCRETE FORMS COMPARED TO CONVENTIONAL 2x6 STUD WALLS WITH FIBERGLASS INSULATION

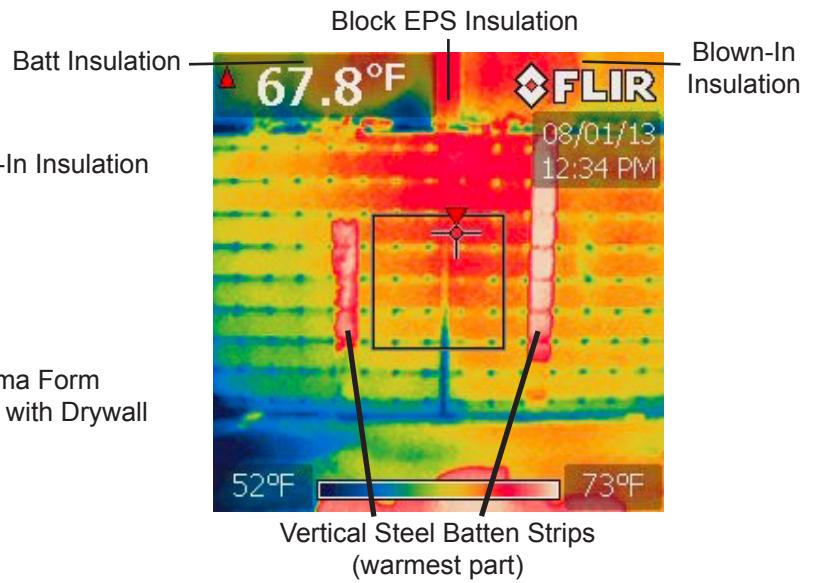


THE THERMAL PICTURES SHOW THE SURFACE TEMPERATURE OF THE WARM SIDE OF THE WALL AT THE END OF THE 90 HOUR TEST

### PERMA FORM WITH DRYWALL



### PERMA FORM WITHOUT DRYWALL



The results affirm that Perma Form has excellent insulation value and is warmer than a conventional wall with fiberglass insulation.

For Complete Testing Results Visit  
[www.permaformicf.com](http://www.permaformicf.com)