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Wednesday, November 25, 2009

ThermalCORE PCM Panel By National Gypsum

National Gypsum ThermalCORE Panels with Micronal PCM help maintain a comfortable interior environment as indoor temperatures fluctuate during the day.

Made by BASF Corporation, Micronal is a phase change material. A microscopic acrylic capsule contains high-purity paraffin wax. The capsules absorb and distribute heat energy as the wax melts and solidifies as room temperatures fluctuate. Micronal changes phase at 73 degrees F.

National Gypsum ThermalCORE with Micronal PCM absorbs and stores heat during the day, cooling a room, and releases the heat during the cooler evenings, helping keep the room comfortable.

California's Emerging Technologies Coordinating Council and the Department of Energy's National Renewable Energy Laboratory will provide input on field trials and assist in evaluating results.

National Gypsum has exclusive access to BASF's Micronal PCM and is the first company in North America to produce wall panels from it.

National Gypsum ThermalCORE Panels made with Micronal PCM are:

- ½-inch thick
- Faced with fiberglass mat
- ~2100 pounds/msf
- Melting point of 23 degrees C, 73 degrees F
- Latent heat capacity ~22BTU/ft2
- Scores 10 in ASTM D3273

National Gypsum Thermal Core handles and installs like regular drywall and provides added thermal mass not typically found in traditional light-weight construction. The panels require a skim coat and will accept decoration similar to standard gypsum board.

at 5:30 PM

Credits: EA 1 Optimize Energy Performance, EA P2 Minimum Energy Performance