

# **ATTENTION: BUILDERS**

## **HIGH MOISTURE CONTENT**

PLEASE DISCUSS THE FOLLOWING SUBJECT MATTER WITH YOUR NEW CUSTOMERS:

Currently, Structural Modulars, Inc constructs their homes in accordance with the International Residential Code and the International Energy Conservation Code. As you begin the process of designing your customer's new home, they need to be informed of several issues that arise due to the use of these better building practices.

First, the unintended consequences of poor indoor air quality are the result of today's homes having a well-insulated and tightly sealed envelope. This condition prevents the escape of costly conditioned air, but allows for the build-up of harmful contaminants within the home. One way to efficiently exchange the air in the home is to install a whole house ventilation system. One type of system is a Heat Recovery Ventilator, or HRV. This type of mechanical ventilation is more cost effective by reclaiming the conditioned air temperatures from the exhaust outflow. This happens when the stale conditioned indoor air passes over a transfer core in the unit, exchanging the heat or cool with fresh incoming air. During this process, the HRV is helping to reduce carbon monoxide levels, humidity, odors, mold, spores, dust, and pollen that would otherwise be trapped inside the home.

Another issue arising from the "tight" building envelope is the more visual appearance of water condensation throughout the home. This is an issue that, under some conditions can lead to water damage, but most of all, the development of mold. One reason for this condensation forming is high humidity levels in the home due to the homeowner's lifestyle. Each day, we saturate the air with excess water vapor from cooking, showering, and clothes drying; even the location of the home in shaded areas with high moisture content in the surrounding soil, can contribute to excess moisture in the home. One other consideration would be the concrete floor in the basement, which may take weeks before it cures and no longer releases water vapor into the air. These conditions should be discussed with the homeowner as to how to manage the humidity levels in their new home with the installation of either a whole house dehumidifier or one sized for specific area.

If the new amendments to the International Residential Code are approved, it will be required to install some form of home ventilating system. With that said, it is Structural Modulars recommendation that a properly sized air ventilation system be integrated with the whole house HVAC system. There is no product on the market that will guarantee that upon its installation, these conditions will be totally eliminated without the cooperation and proper adjustments in lifestyle by the homeowner to reduce the moisture content in their new home.

You may wish to inform your customer about the potential pitfalls that may arise if proper ventilation and humidity levels are not controlled. While Structural Modulars feels this information is important to the Homeowner, Structural Modulars, Inc. cannot guarantee results or assume any liability. It is recommended that a proper plan to address these issues is discussed with you HVAC contractor or other experts in this field. Proper planning may reduce future problems.