GYPSUM'S ENVIRONMENTAL STORY . . .

... in North America
GYPSUM — THE MIRACLE MINERAL

GYPSUM IS A BENIGN ROCK formed in the age of dinosaurs as calcium sulfate through precipitation in vast inland seas throughout the world. The oldest known use of gypsum as a building material was in the ancient Egyptian pyramids. Over the past 3,500 years or so, it has become one of the most important minerals known to mankind for the manufacture of construction materials as well as use in a vast array of other products. About 80 percent of the gypsum mined or quarried in North America is used to manufacture gypsum board or building plasters. Over 30 billion square feet (2.8 billion square meters) of gypsum board are produced annually in North America. Augustine Sackett is credited with inventing the modern version of gypsum board (drywall) in the 1880s.

Gypsum is virtually indispensable for the interiors of homes and offices and all types of buildings where people congregate, such as schools, shops, airports, etc. Its superior performance in providing everyday comfort, in fire resistance, and in insulation heralds an even greater role for it in buildings of the future.
Gypsum as calcium sulfate is recognized as acceptable for human consumption and a wide variety of other uses by the U.S. Food and Drug Administration such as a dietary source of calcium, to condition water used in the brewing of beer, to control the tartness and clarity of wine, as an ingredient in canned vegetables (such as potatoes, carrots, and peppers), flour, white bread, ice cream, blue cheese, and other foods.

Color additives for drugs and cosmetics are made of gypsum.

Most residents of the U.S. and Canada come into contact with gypsum every day and pay no attention to it. Gypsum's great versatility goes unrecognized; few are aware of how valuable a mineral it is and how well it is suited for its many jobs.

The construction industry uses gypsum plaster and drywall products for fire resistance, sound control, and thermal insulation that meet stringent quality and performance standards. These products also help to create striking and innovative interior styles that are easily designed and installed.

However, gypsum is used in many other applications, including the baking and brewing industries as well as cosmetics, toothpaste, farming, medicine (plaster casts and fillers for pills), molds for a variety of ceramic products, and a host of others too numerous to list here.
WITH NEARLY 100 NORTH AMERICAN PLANTS in 29 states and 8 provinces, the gypsum industry directly provides 300,000 jobs in communities throughout the U.S. and Canada and many more indirectly in the transportation, distribution, and installation of gypsum board and related products. Gypsum board manufacturers are good corporate citizens and contribute in a major way to the national economies as well as the general welfare and well-being of local communities through participation in a variety of civic activities.

New gypsum board manufacturing plants are designed to be energy efficient; existing plants have been upgraded to use energy efficiently. Some manufacturing facilities co-generate electrical power as part of their operations. Depleted gypsum mines and quarries are rehabilitated to merge with the existing natural landscape. The North American gypsum industry has developed a responsible and environmentally conscious attitude toward issues of reclamation, preservation of natural resources, recycling and waste management, and otherwise protecting the environment.

It is now our pleasure to tell you more about this and how we do it.

RECYCLING WASTE PAPER
The North American gypsum industry has used recycled paper to manufacture gypsum board for nearly half a century. Over 90 percent of gypsum board paper used is from recycled materials.

WASTE MANAGEMENT
New construction waste: New residential construction waste gypsum may be spread over the building site when done in a proper manner.

Demolition waste: Proper disposal of waste gypsum board from demolition, renovation, and remodeling projects needs cooperation from various community sectors. When disposed of properly, waste gypsum poses no health or environmental threat. The gypsum industry is working on disposal solutions for this type of waste.

In-plant waste: New gypsum plants feature recycling of in-plant production waste; existing plants have undergone or are being retrofitted to enable them to also recycle production waste.

CONSERVING RAW MATERIALS
The gypsum industry increasingly uses “synthetic” gypsum to manufacture gypsum board. This raw material is a by-product, or waste material, from other manufacturing processes as well as the desulfurization of flue gases in fossil-fueled power plants. By using what would otherwise be waste products, the gypsum industry reduces the stream of solid wastes going to landfills and at the same time extends natural gypsum reserves.

ENVIRONMENTAL PROTECTION AND WASTE RECOVERY

The desulfurization of flue gases in fossil-fueled power plants produces wallboard quality synthetic gypsum.
FROM GYPSUM ROCK...

Gypsum’s journey from the earth as a rock...to its key role in one of the building industry’s most valued products—gyypsum board.

...TO GYPSUM BOARD — A SEQUENCE OF EVENTS
GYPSUM ASSOCIATION MEMBER COMPANIES

AMERICAN GYPSUM
Atlantic Group Limited
 Celsius
Continental Gypsum
G-P Gypsum Corporation
James Hardie Gypsum
Lafarge Gypsum
National Gypsum Company
PABCO Gypsum
Republic Gypsum Company
Temple
United States Gypsum Company
Westroc