Calcium Carbonate in Paint, Coatings, and Adhesives (PCA) Applications

The versatility of today's paints and coatings is truly impressive. There is an optimal paint or coating for every need and every surface, ranging from anti-corrosive primers to interior wall paints. This versatility is made possible, in part, due to the addition of natural calcium carbonate into paints and coatings.

Interior wall paints are without doubt the most important applications of calcium carbonate in the coatings industry. Omya offers an extensive range of standard and specialty products to the coatings market. Calcium carbonate can significantly improve paint properties such as sheen, opacity (covering power) and wear resistance.

Industrial coatings are primarily used for protection against potentially adverse environmental conditions, with the focus on durability. Natural calcium carbonate has an alkaline pH-value and low oil absorption. This important combination of properties is ideal for primers and primer surfacers. Calcium carbonate has become an appropriate component for top or finishing coats as well, where high gloss and gloss retention are demanded. In other applications, such as powder coatings, calcium carbonate is employed to adjust gloss level.

Calcium carbonate is also a basic raw material in adhesives and sealants formulations. Traditionally, the main reason for using mineral filler was cost reduction. However, functional properties are increasing in importance as market demands on adhesives and sealant products advance. Mineral fillers can be used to improve mechanical properties, sagging resistance and viscosity. The range of fillers used today is almost as wide as the range of adhesives and sealants available, including white marble powder for wet-room sealants, fine and coarse powders for tile adhesives and grouts, and surface-treated fillers for moisture-sensitive sealant systems.

Plasters are used for both decorative and functional purposes. Calcium carbonate is used in textured plasters that require coarse particles with high brightness to meet the optical needs of customers. The plaster, which acts as a water barrier, also allows water vapor to pass through at the same time, to protect buildings from damage.

Safety Through TEAMwork
Together Everyone Achieves More

The health and safety of our employees, stakeholders, and neighbors is a top priority for Omya. At our Verpol facility in Florence teamwork is a key component to reducing workplace risk and promoting injury prevention. Our goal of continuous improvement in health and safety performance is a top priority for Omya. At our Verpol facility in Florence teamwork is a key component to reducing workplace risk and promoting injury prevention.

In 2008, Omya became the first company in Vermont to achieve a top priority for Omya. At our Verpol facility in Florence teamwork is a key component to reducing workplace risk and promoting injury prevention.

Verpol Safety Team Members pictured left to right are: Greg Dahlin, Brian Narkewicz, Ben Burton, Adam Parker, Fred Ray, Michael Renney, Sean Bervesford, Robert Trewhorgy, Dan Finlot, Jim Prior. New team members missing are: Evan Truchon, Jack Tait, Mike Kellogg, Ray Shoultsieau.

OMYA NEWSLETTER SUMMER 2011

what's new

Work Now for the Future

With the return of warmer weather, many of us have a list of household maintenance projects just waiting to be tackled. Perhaps you are looking to paint your home, install new vinyl siding or re-shingle your roof. Omya's calcium carbonate is used in all of these products – and many more – to enhance product performance. For instance, when used in paint, calcium carbonate improves color and actually lowers the cost of paint products, making them more affordable for everyone. (See adjacent article)

Our calcium carbonate products are created by blending the different raw materials that come from several quarries we utilize here in Vermont. Managing our mineral resources the best we can is important in consistently delivering a high quality product well into the future. To that goal, Omya's application for an Act 250 amendment for our Hogback Quarry in Florence (see article on page 2) will allow us to optimize our resources and storage capacity. This not only benefits Omya but it will also benefit our local community by making stone aggregate more readily available for use in septic systems, road repair and construction and more.

Like you, Omya is facing cost increases for many raw materials, including fuel, and we are hopeful that natural gas will one day be available in this part of Vermont. We believe that it is in Vermont's best interests to promote energy alternatives that allow us to remain competitive while also reducing CO2 emissions.

In this Omya Vermont Newsletter you will find many articles that discuss our products, operations, our dedicated employees and their successful teamwork focused on workplace safety, and the solid progress made in finding commercial uses for our tailings by-product. We hope you find them interesting and informative.

Thanks for the support that you continue to give to Omya. We are pleased to be part of this community and we will continue to actively work with you to build a strong relationship that benefits us all.

I welcome your comments, concerns and suggestions about Omya and the Verpol facility. Please contact me directly at 770-7617 and I will do my best to assist you.

Best regards,
Pierre Massy

Omya Community Survey Results Are In

In November 2010, Omya contracted with the Center for Rural Studies at the University of Vermont and the Conservation Law Foundation to conduct a community survey. The survey was mailed to over 4,300 randomly-selected homes in Brandon, Florence, Middlebury, Pittsford, Proctor, Rutland and West Rutland. Those who fully completed the survey within the requested time were eligible for a random drawing for a $50 gas card. We received a response rate of nearly 13 percent and gave away five gas cards.

The survey was conducted in order to gain knowledge as to how Omya is perceived in the community, to determine our overall effectiveness in the area and to find opportunities to build stronger relationships with our neighbors. While we are still studying the data, initial results indicate that our newsletter is one of the top three ways in which you receive information about Omya! In addition, you told us that Omya

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5S Program Leads to Workplace Efficiencies

As part of our company efforts on continuous improvement we have implemented the 5S Program here at the Verpol facility. 5S is a workplace organizational method that describes how to systematically process work and maintain work environments efficiently. 5S is an effective tool for identifying and eliminating inefficient practices from the workplace and is widely used in a variety of organizations, including manufacturing, health care and the military. The 5S motto is: "a place for everything and everything in its place".

Each "S" stands for a phase of the process that seeks lean, value-added activities and functionality. Take the time to organize by using each "S":

- Sort: Go through all tools and materials and keep only essential. Eliminate all unnecessary.
- Straighten: Clearly label all items and arrange in an efficient work flow. Items should be arranged with equipment used most often being the most easily accessible and kept close to where it will be used.
- Shine: Keep the workplace neat and organized daily. At the end of each shift, clean the work area and be sure everything is ready for its place. This makes it easy to know what goes where and ensures that everything is where it belongs.
- Standardize: Work practices should be consistent and standardized. Everyone should know exactly what his or her responsibilities are for adhering to the first 3 S’s.
- Sustain: Once the process has been established, that process becomes the norm to operate. Maintain new standards and also be thinking about even better practices.

5S training helps ensure that everyone has the same baseline understanding of its process and aids in maintaining, inspiring people to take the next step toward better organization at work or even at home. The training program at Verpol was organized through the Vermont Manufacturing Extension Center (VMEC). To date, over 60 employees have completed the VMEC training. We would like to thank our dedicated Shea and Ken Walker of VMEC for their dedication and expertise in the training effort which has occurred over the past year. The 5S program is a valuable addition to our workplace.

Significant Goal Achieved - Flotation Process Change Implemented

As part of our operations, we use a flotation agent that aids in purifying the marble ore. The flotation agent assists in separating the natural minerals leaving a pure limestone which, in turn, results in a higher quality product. Last fall, after many months of hard work with our suppliers combined with a thorough review by Cambridge Environmental, an independent environmental consulting firm, and the State of Vermont, Omya received permission from the State to begin testing a new flotation agent.

Over the course of several months, we conducted a series of plant trials using the new flotation agent. All of our technical information was shared with the State of Vermont’s Solid Waste Program, Department of Health, and Wastewater Management Division. After reviewing the information, the State granted Omya approval to proceed with the use of the new flotation agent. Although the results of a more rigorous, long-term, environmentally independent study exist, we believe that the results enable us to advance our processes. The new flotation agent formulation works well with our operations, maintains the quality of our products and is cost-effective.

The switch to the new flotation agent, along with the 2009 commissioning of the Tailings Dewatering Facility and the recent construction of a lined Tailings Management Facility, are examples of Omya’s ongoing commitment to process improvement and the environment.

Hogback Quarry Act 250 Permit Amendment

Since 1994, the Hogback Quarry operation has provided approximately one-fifth of the marble ore that is processed into high-quality calcium carbonate products at Omya’s Florence facility. Currently, the Hogback Quarry operates under a State of Vermont Act 250 permit that allows the quarrying, crushing, and screening operations to occur seasonally from April 1st to November 30th.

In order to more efficiently and effectively utilize our mineral resources and quarry operations, Omya will soon file an application to amend our Act 250 Permit and seek approval for year-round operations. However, the current daily restrictions around Hogback (7am-5pm, Mon-Sat) will remain unchanged. The existing blasting protocol would also remain the same.

- Year-round operation will afford greater flexibility in: ore and feedstock blending, resulting in less waste, more consistent quality material and a longer-term supply to the Omya calcium carbonate facility; • meeting Omya feed stone requirements with improved inventory control throughout the year; • scheduling maintenance and repairs to the quarry’s processing equipment; • maintaining a steady and consistent labor force without seasonal layoffs; • extending the availability of construction aggregates to the local community year-round.

In addition to seeking approval for year-round operations, we will seek approval to begin a new on-site reclamation area. The existing on-site reclamation area covers 1.35 acres and provides the capacity for placement of rock that does not meet Omya’s feed stone quality requirements, aggregate quality standards, or is surplus to local area aggregate demand.

Finally, the amendment application will also request approval for additional rock screening capacity to process and sort into construction aggregate rock that might otherwise become waste. Such aggregates can be utilized locally in numerous ways including septic systems, foundation drainage, driveways, and road building and repair.

Omya Gives Back

At Omya we feel it’s our civic responsibility to support local efforts that benefit our community and neighbors. In the past six months we have made donations to the following organizations and community groups:

- Camp Tamarack
- Children’s Trust Fund
- epilepsy Foundation of Vermont
- freezing for families
- Lake Region Independent Ryders
- Mayors’ Action Team
- Middlebury Rotary Auction
- Neshobe Sportsman Club
- Rutland Area Vehicle Enthusiasts - RAVE
- Rutland County Humane Society
- Rutland High School Project Graduation
- Rutland Area Supervisory Union 6th Grade Partnership
- Special Olympics
- Summit Football Club
- Sunshine Fund
- United Way

Youth Events

- Boys & Girls Club of Brandon
- Boys & Girls Club of Rutland
- Black Ice Hockey
- Lady Celtics - AAU Basketball Team
- Lady Ice - AAU Basketball
- Orwell Village School
- DVL White - Baseball Team
- Lake Region Youth Orchestra
- Pittsford Recreation Center
- Proctor Youth League
- Quarry Hill School
- Rutland Recreation Center
- VT State Science & Mathematics Fair

Parent Teacher Organization – Association (PTO – PTA)

- Booster Clubs
- Loffing Elementary School
- Proctor Elementary School
- Proctor High School
- Rutland Town Elementary School
- West Rutland Booster Club

Project Graduation 2011

- Half Marathon Union High School
- Mill River Union High
- Otter Valley Union High
- Rutland High School

Fundraiser Walks & Runs

- American Cancer Society - Relay for Life
- Moosalamoosh Goshen Gala
- Susan G. Komen - Race for the Cure
- West Rutland Foundation - Sunshine Run

Community Events

- Addison County Fair & Field Days
- Brandon Senior Center
- Brandon Town Pageant
- Loretto Home
- Madura Women’s Club
- Pittsford Lions Club
- Rutland Railway Association
- VTVM 60th Anniversary
- VT Adaptive Ski and Sports

Summer Concerts

- Addison County Fair - Castleton
- Henry Sheldon Museum – POPS
- Our Yard - Proctor
- Town of West Rutland

Donation requests can be made on-line at: http://www.omyaflvt.net/community/donations/
Blood Drive - A Great Success

Omaha was pleased to sponsor a Red Cross Blood Drive held April 12th at the Lathrop Elementary School in Pittsford to assist Mike Hesley, a Boy Scout from Troop 110, in earning the highly regarded Eagle Scout rank. Mike did an outstanding job recruiting the drives and managing the blood drive and members from his troop showed great spirit and support by volunteering at the day-long event alongside Omaha’s Jill Blanchard and Nate McKay, as well as a number of other community members. Over 58 pints of blood were donated – a testament to the generosity of our community!

Progress with Commercial Uses

Blanchard (Omya employee) of Omya employee Nate McKay) and Jill Blanchard (Omya employee)

Blanchard (Omya employee)

Progress for development of new markets is a high priority with the ultimate goal being 100% off-site utilization of this product.

Honoring Fortyt Years of Service

In March, Omaha and Tim Perry, an employee of 40 years, celebrated as Tim enters a new phase of his life: retirement. Tim, a native Vermonter, began his career with Omaha in 1970 at the Callahan-Ams Company which was owned, at the time, by the Vermont Marble Company. Omaha purchased the Vermont Marble Company in 1976. From Callahan-Ams, Tim moved to the White Pigment Corporation plant in Florence (now Omaha’s “Verpol East”), which was fully acquired by Omya in 1987. Tim’s management role included labor negotiations and keeping personnel safe, focused and productive.

Jim Stewart, Omaha’s North American Operations Manager for Dry Plants, described Tim as “unflappable, steady and calm.” Tim’s consistent and dependable demeanor was essential to his successes at Omaha, from strengthening the production at the East Plant to managing the Packaging and Shipping Departments at the West Plant.

Tim also put his skills to use helping our community. He was involved in the Negotiation and Finance Committees with the school boards for Cavet, Castleton Elementary School, Castleton Town School and the Addison Rutland School District for many years. “Make it fun” is Tim’s work and life philosophy, one that he will carry with him into his retirement. Tim looks forward to spending more time with family, fishing, golfing, hunting and many other hobbies and projects.

Pierre Masuy, Omaha Verpol Plant Manager, notes that Tim “exemplifies Omaha’s core values of Courtesy, Modesty, Integrity and Perseverance, and his significant contributions over the past 40 years are greatly appreciated and valued.” The people at Omaha say “Thank you” to Tim and wish him a wonderful and fulfilling retirement.

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A man in motion!

Tim Elliott knows what busy is. As a father, farmer and Omya Process Engineer, he is a man in motion – year round.

Tim’s career at Omya began as an intern 19 years ago working in the Quality Lab, followed by a summer working with the Engineering group. After completing his Bachelor’s of Science degree in Mathematics from Roberts Wesleyan College, he worked onsite as an Engineering Consultant through Hallam-ICS before working again directly for Omya as a Construction Engineer. In that capacity, he worked to synthesize many of the large expansions of mills, evaporators and process tanks at the Verpol facility. Adaptability and swift action is required to keep such high activity projects delivered on time and safely. As Tim noted, “It was great! It was a very exciting time, a lot of long hours and a lot of interesting people.”

Through the construction process Tim gained unique perspective and background for his current position as a Process Engineer. With always more than one project underway at a time, Tim’s multifaceted abilities cover everything from the inception of process improvement projects to planning and laboring: whatever it takes to get the job done.

Tim’s constant pace at work matches that of his personal life. When not working at the speed of a sprint, Tim works his organic farm, a fifth generation farm in Chittenden, with his wife Stacey and his five children ranging in age from 5-16. Through hard work and initiative, Tim and his family have created Holden Heritage Agriculture, a thriving business selling beef, pork, chicken and eggs. They sell raw milk faster than the cows can produce it.

Whatever project Tim is on, rest assured it gets done well – with energy and enthusiasm and at a pace most of us only wish we could keep.

Safety Through TEAMwork – continued from first page –

certification to the prestigious OHSAS 18001:2007 (Occupational Health and Safety Assessment Series), an internationally recognized standard for safety management. This certification demonstrates that Omya has in place a solid Health and Safety Management System to identify, assess and control hazards as well as to continuously improve health and safety performance. Together with the synergy created by individual commitment, a proactive safety culture has been created and is nurtured in our workplace.

Leading indicators such as Area Audits, behavior-based safety observations (the DuPont STOP Program) and contributions made by each department provide cutting-edge insight that allows us to solve potential problems before they may cause injuries. Leading indicators tell us what critical parts of our system are working or need improvement. Lagging indicators such as Incident/Accident summaries are reviewed while keeping a focus on education and the assessment of how those injuries could have been prevented.

A regional Health and Safety Team has been established to collaborate and resolve safety challenges potentially found in all of our Omya facilities throughout North and South America. Here at Verpol, our team consists of thirteen dedicated employees representing all departments. Each employee goes above and beyond their normal job descriptions to actively engage in hazard recognition, report and find resolutions to potential workplace hazards. This team assists in developing and tracking safety contributions, which are ideas that make jobs easier and safer. Their contributions are many and have included improvements to machinery to reduce product plugging issues, installation of swinging gates at tops of ladder-ways to prevent falls, construction of carts to handle and move large parts, improved guarding features on equipment, design and installation of handrails, and even re-sloping floors. These contributions not only make our employees safer and are good business practices, but also are good leading indicators for determining the effectiveness of our safety program.

Verpol’s Safety Manager, Brian Narzewicz, notes that the Health and Safety Team “is a tremendous resource and its members work as safety ambassadors, always driving the continued involvement of our entire team in the pursuit of a safer workplace for fellow workers and visitors - not only here in Verpol but throughout the Omya organization.” Omya employees are committed to the fundamental principle that valuing health and safety helps assure that at the end of a safe work day, everyone gets to go home to their families and activities while enjoying the benefits of continued good health.

An indication of the success of our team’s safety culture is that it has moved from the workplace into the home life of many of our employees. Omya employees have shared stories of injuries that were prevented while performing general tasks at home because of the awareness they have towards their own and others’ safety.