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 carbonates 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 with a target of zero accidents, injuries and incidents is fueled by employee involvement, management commitment and a common desire to create an injury-free environment.

In 2008, Omya became the first company in Vermont to achieve

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Verpol Safety Team Members pictured left to right are: Greg Dahlin, Brian Narkewicz, Ben Burton, Adam Parker, Fred Ray, Michael Ranney, Sean Beresford, Robert Treworgy, Dan Firliet, Jim Prior. New team members missing are: Evan Truchon, Jack Tan, Mike Kellogg, Ray Shortsleeves.

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 ores 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, 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 Masuy

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 randomlyselected 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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recent & upcoming events

Omya Employees' Green Up Day*

May 7

Pittsford Town and Omya Team up For Green Up Day*

Omya Community Issue Team Meeting

June 25

Pittsford Day Celebration*

12:00 p.m. - 4:00 p.m. at the Pittsford Recreation Area

Town of Pittsford 250th Anniversary Celebration 6:00 p.m. - 9:00 p.m. Concert with Satin & Steel at the Pittsford Recreation Area *

Quarterly Surface Water Monitoring Event

September 24

Proctor Fall Festival*

October 15

Omya's Middlebury Quarry Open House

October 17-21

Biannual Water Monitoring Event (incl. Quarterly Surface Water Monitoring)

*Omya is a sponsor of this event

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:

Civic Fundraisers

Camp Thorpe Children's Trust Fund **Epilepsy Foundation of Vermont** Freezing Fun for Families Lake Region Independent Ryders March of Dimes Middlebury Rotary Auction Neshobe Sportsman Club Rutland Area Vehicle Enthusiasts - RAVE **Rutland County Humane Society Rutland High School Project Graduation** Rutland Northeast Supervisory Union 6th Grade Partnership Special Olympics Summit Futball 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 OVUHS - Baseball Team** Lakes 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**

Lothrop Elementary School Proctor Elementary School **Proctor Sports Booster Rutland Town Elementary School** West Rutland Booster Club

Project Graduation 2011

Fair Haven Union High School Otter Valley Union High **Rutland High School**

Fundraiser Walks & Runs

American Cancer Society - Relay for Life Moosalmoo-Goshen Gallop Susan G. Komen - Race for the Cure Sarah Leary Foundation - Sunshine Run

Community Events

Addison County Fair & Field Days Brandon Senior Center **Brandon Town Players** Loretto Home Maclure Library Pittsford Lions Club Rutland Railway Association VFW Post 648 VT Adaptive Ski and Sports

Summer Concerts

Concerts on The Green – Castleton Henry Sheldon Museum - POPS Our Yard – Proctor Town of West Rutland

Donation requests can be made on-line at: http://www.OmyalnVermont.net/community/donations/

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 stations 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 primary phase of the process that seeks lean, valueadded activities and functionality. Take the time to organize by using each "S":

Sort Go through all tools and materials and keep only essential

items. Eliminate all unnecessary items.

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 restored to 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 new way to operate. Maintain the new standards and also be thinking about even better practices.

5S training helps ensure that everyone has the same baseline understanding of the process and can also be motivational, inspiring people to take the first 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 Dan 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 more pure form of calcium carbonate 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 toxicological expert, 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 comprehensive independent study of the entire Omya Florence, Vermont site confirmed that Omya's operations do not pose a threat to human health or the environment on or off our site, as a matter of best management practice, we continually pursue new and alternative ideas that enable us to advance our processes. The new flotation agent formulation works well with our operations, maintains the quality of our products and is

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 onefifth 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 quarry operation (7am-5pm, Mon-Fri) and stone hauling (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 feed stone 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 lavoffs;
- extending the availability of construction aggregates to the local community vear-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 areas are nearing 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.

Green Up Day Tradition Carries On



Ah, Spring! Although the first official day of spring is March 20, we know the season has actually arrived once the daylight savings time change propels us forward, the grass and trees begin to turn green and Green Up Day occurs around the State. Omya, a long-time supporter of the Green Up initiative, arranges for its employees to pitch in to pick up trash along roadways and walkways in Florence,

Pittsford and Proctor. As they have for the past 15 years, Omya employees again took time from their normal work routines to canvas the area and collectively gathered more than 80 bags of trash, tires and miscellaneous household items.

In addition to our employees' involvement, Omya supported the Pittsford Town-wide Green Up Day, held on Saturday May 7th, by providing a trash container located at the Town Office on Plains Road and lunch from Keith's Country Store. It was a perfect day to be outside working with our neighbors to Green Up our beautiful town.

Honoring Forty Years of Service



Pictured is: Tim Perry and his wife Deborah

In March, Omya 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 Omya in 1970 at the Callahan-Ams Company which was owned, at the time, by the Vermont Marble Company. Omya purchased the Vermont Marble Company in 1976. From Callahan-Ams, Tim moved to the White Pigment Corporation plant in Florence (now Omya's "Verpol East"),

which was fully acquired by Omya in 1987. During the early years, Tim's management role included labor negotiations and keeping personnel safe, focused and productive.

Jim Stewart, Omya'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 Omya, 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 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, Omya Verpol Plant Manager, notes that Tim "exemplifies Omya'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 Omya say "Thank you" to Tim and wish him a wonderful and fulfilling retirement!

Blood Drive - A Great Success



From Left to Right: Mike Winslow (Eagle Scout), Dawn McKay (volunteer & wife of Omya employee Nate McKay) and Jill Blanchard (Omya employee)

Omya was pleased to sponsor a Red Cross Blood Drive held April 12th at the Lothrop Elementary School in Pittsford to assist Mike Winslow, a local Boy Scout from Troop 110, in earning the highly regarded Eagle Scout rank. Mike did an outstanding job organizing and promoting the blood drive and members from his Troop showed great spirit and support by volunteering at the day-long event alongside Omya'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. Congratulations to all on a job well done and to Mike for achieving the rank of Eagle Scout!

Progress with Commerical Uses for Tailings

The first "commercial" use of Omya's tailings was in the closure of our former on-site Tailings Management Areas and in the construction of our new lined Tailings Management Facility. In each case, our tailings were utilized in place of purchasing other mineral resources and transporting them to the facility. Use of the tailings in that manner was consistent with our Solid Waste Disposal Facility Certification issued by the Vermont Agency of Natural Resources (ANR). The completion of those construction projects late last fall allows us to now focus on various off-site commercial uses of tailings.

Since early January 2011, thousands of tons of tailings, known by their official product name of "Omya SPS - FL", have been trucked to a Vermont commercial solid waste landfill for use daily in covering household garbage that is disposed there. An extended trial conducted by the landfill operator and observed by the Vermont ANR supported ANR's determination that tailings could be used on an ongoing basis as "alternative daily cover."

In April 2011, Omya received its first order for Omya SPS - FL from a Connecticut company that now uses it as the mineral component of its pavement sealers. Several other commercial uses are being pursued and prospective customer trials are being conducted as this publication goes to press. Our Omya SPS - FL is sold into a highly-competitive market and the challenges to securing end uses are daunting. Nonetheless, the search for and development of new markets is a high priority with the ultimate goal being 100% off-site utilization of this product.

contact have a comment destion?

Do you have a comment or suggestion? We want to know.

802-770-7644

The Omya Community Feedback Line is available 24 hours a day, 7 days a week. You can also reach us through our website at www.OmyalnVermont.net. Simply click on "Contact" and select any one of the contacts listed or fill out the on-line comment form at the bottom of the page.

All calls and website inquiries will be returned by 5:00 p.m. on the next regular business day.

Tour the "World of Omya" Exhibit

Stop by the Vermont Marble Museum to learn about the past, present and future of marble and see the versatility of applications marble has for use in your every day life. Omya, a global producer of the highest quality



calcium carbonate which is derived from marble among other sources, illustrates the mineral production process from quarrying the marble to providing examples of how calcium carbonate is used in consumer products. A short video takes you on a virtual tour through the Verpol facility in Florence. The museum, located at 52 Main Street, Proctor, Vermont, is open 7 days a week from 9:00 a.m. to 5:00 p.m., from mid-May until the end of October. For further information, contact the Vermont Marble Museum at 802-459-2300.

Omya Educational Scholarships

Omya's scholarship program offers incentives for the development of Vermont's future workforce by assisting students in their educational pursuits. Each year \$14,000 is awarded to local students based on their academic achievements and involvement and leadership within their schools and communities. These recipients are exceptional individuals and we congratulate each of them for their dedication and many accomplishments.

2011 - 2012 Scholarship Recipients

Daniel Booth – Rutland High School
Jordan Bradish – Fair Haven Union High School
Emily Gunn – Rutland High School
Stephanie Ketcham – Otter Valley High School
Carlton Kellogg – Proctor High School
Matthew Mazzariello – Rutland High School
Anna Morale – Otter Valley Union High School
Emily Patch – Otter Valley Union High School
Daniel Pennington – Rutland High School
Jacob Swane – Rutland High School

2010 - 2011 Scholarship Recipients

Jillian Cody – Rutland High School
Elizabeth Foster – Rutland High School
James Hughes – Rutland High School
Madison Kincaid – Middlebury Union High School
Brett Lertola – Otter Valley Union High School
Richard Poro – Otter Valley Union High School
Kyle Raymond – Rutland High School
Kathryn Zambon – Mount Saint Joseph Academy

Omya Community Survey Results Are In < continued from first page >

contributes to the community by providing jobs, financial support and tax revenue. You also indicated some concerns regarding potential environmental impacts, lost trucks and noise. These topics are important to Omya as well and we meet regularly with the Community Issue Team to reach viable solutions. For information about the Community Issue Team, visit our website at www.OmyalnVermont.net.

Upon completion of the analysis of the data, we will share more detailed results with you in the next issue of our newsletter and on our website.

For more information about Omya's North American and International Operations visit www.omya-na.com and www.omya.com.



people at Omya

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 synchronize 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.

P.O. Box 10 Whipple Hollow Road Florence, VT 05744

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 as 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

Verpol's Safety Manager, Brian Narkewicz, 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.