Message from the President

How Can We Improve TVA Starting Today?

by Damien A. McDermott

The annual meeting of The Vermiculite Association in Park City and Salt Lake City, Utah, Sept. 11 through 13, was a successful and happy occasion. Kathryn Louis presided over the board meeting and a day of excellent presentations from world-class experts on better testing methods, changing environmental regulations and insights regarding process variability.

Well done, Kathryn and support teams! It was a pleasure. Thank you, too, for making sure The Vermiculite Association made it through some lean times in recent years!!

Now, the next phase begins. I am honored to be elected your new president of the association, and I look forward to serving in a way that permits The Vermiculite Association to address the pressing issues we still face as an organization and as varied industry participants.

Our mission as a trade association is really very simple. We need to help grow our respective vermiculite businesses, to raise all boats, and at the same time improve The Vermiculite Association itself. To do this, we have to focus on the following:

1. **Improve vermiculite’s image,** by focusing on the positive things vermiculite does TODAY. Although object warning lessons and old stories about old mines are, by now, very tragic and well understood, it’s time to move on. The old bad mines have been litigated out of production and turned into Superfund sites, and some of the guilty have been made to pay. Today, vermiculite is clean, safe and used in a vast variety of products. Going to the Internet and quickly grasping an understanding of the wonderful applications of vermiculite should be a lot easier.

Today, vermiculite is clean, safe and used in a vast variety of products.
Message from the President

Continued from page 1

understanding of all these wonderful applications of vermiculite should be a lot easier than it seems to be currently. This is one of the things we need to change and improve.

2 Grow the membership of our organization around the world. We need to increase our membership, particularly among users, innovators and converters of vermiculite-based products. Supply has stabilized and is the best it has been in many years. It is now time to look downstream at the demand side and get more going there.

3 Help protect end consumers, our membership and ourselves through the adoption of best practices and stewardship of materials from source to consumer to ensure they are clean and safe.

It’s your association. Let’s take on the challenge of making this industry better together and succeed.

Up till now this association has been run on a shoestring. It has done well despite this, but to step up the results, so that we can accomplish these goals is going to take more money, time and resources than have typically been deployed in the past. We are formulating a plan to cover public relations, website improvements, media relations and a revamping of the stewardship program to make it more understandable and doable for members.

We will be asking for your opinion and assistance with this plan. We may decide to stop certain things that have been happening up to this point so that we save money. We will likely be asking for assistance, monetarily and otherwise.

It’s your association. Let’s take on the challenge of making this industry better together and succeed. I look forward to working with you all over the next couple of years.

Meet Damien McDermott

TVA’s new president, Damien McDermott, is the director of purchasing and supply chain for Isolatek International in Stanhope, N.J. Isolatek is a major manufacturer of passive fire-resistant materials for the large-scale commercial construction market.

As he steps into the role of TVA president, Damien says, “I am honored and humbled to lead The Vermiculite Association. I am looking forward to us all moving the organization forward. It is an exciting time of growth.”

Among his visions for TVA is to become more relevant and professional to better serve the needs of the organization’s members. He also wants the association to embrace the needs of those outside the United States and deal with the image and perception issues surrounding vermiculite while protecting good industry practitioners. Rather than focusing exclusively on mines and asbestos issues, he would like the TVA to promote the good the mineral provides and seek a more balanced view of vermiculite.

Damien grew up in the United Kingdom in the 1960s and ‘70s, and his family moved around while his father served in the armed services in Europe and the Middle East, among other places. In the late 1980s, Damien settled in the United States and has lived in New Jersey since then.

He holds a BS degree in polymer and fiber science and paper science from the University of Manchester’s Institute of Science and Technology and an MBA in finance from New York University. His career includes a variety of jobs in the paper industry as well as work on capital projects and strategic planning for Mineral Technologies – Pfizer in New York and Pennsylvania before landing his job at Isolatek in 2009. In his current position, he helps with the company’s sourcing and supply of vermiculite and other raw materials, chemicals, packaging, new plants and toll processors in the U.S. and other parts of the world.

Damien is married to Patty and has four grown children.
More than 20 Vermiculite Association members gathered at the Westgate Park City Resort and Spa in Park City, Utah, for several days in September for The Vermiculite Association’s Annual Meeting. The meeting offered the opportunity to meet members, exchange ideas and explore new opportunities for the association and its members.

Speakers at the Annual Meeting focused on a variety of topics, such as changing from MSDS to SDS; reliable determination of asbestos in vermiculite; statistics; protecting the industry image; an introduction to new analytical techniques; and the Nottingham microwave process. The meeting also featured mining updates, the annual business meeting and Board of Director elections.

On Saturday morning, attendees enjoyed the offsite tour of Salt Lake City, where they visited such locations as downtown Salt Lake City, Mormon Temple Square, the Utah State Capitol Building, the elegant mansions of South Temple and the University of Utah.

Special thanks to Kathryn Louis, TVA president, and meeting committee members Jerry Austin, Mike Darling, Eric Moeller, Jeffrey Sheehy and David Stonier for their dedicated work in planning such a successful meeting.

The 2015 Annual Meeting will be held in Europe in early September. Please watch The Vermiculite Association website, www.vermiculite.org, and your email for updates.

---

2014 Annual Meeting Materials Online

Whether or not you attended the Annual Meeting in Park City, you may access electronic copies of the speakers’ presentations on the website, www.vermiculite.org. Log in to the Members’ Area and select “Private Documents.”

Other materials from the Annual Meeting have also been posted on the website, including the Annual Meeting minutes, photos and final attendee listing.

Click here to go to TVA’s Facebook page where there are more photos from the Annual Meeting.
Attendees of the 2014 TVA Annual Meeting in Park City, Utah, in September

ABOVE: Attendees tour the Utah State Capitol in Salt Lake City.

RIGHT: TVA attendees listen intently to a presentation.

ABOVE: Members attend the 2014 Annual Meeting.

Outgoing President Kathryn Louis thanks those present for their support.

Don Ewert presents “An Introduction to New Analytical Techniques.”
The latest news, observations and insights into the world of vermiculite

by Mike Darling

As this is my second opportunity to contribute to the TVA newsletter, I see this personally as good news. It must mean my previous trawl through the newsworthy items relating to the world of vermiculite must have had some limited merit at least.

The TVA recently held its annual meeting in the Westgate Resort near Park City, Utah (USA). The meeting was well attended and had some interesting and informative presentations. My thanks go to TVA Executive Director Denise Calabrese and the Meeting Committee for organizing this excellent meeting.

As your TVA spokesperson, I have had some further inquiries to deal with recently, ranging from a U.S.-based author needing information on vermiculite for inclusion in a booklet dealing with potting soil mixes to a U.S.-based architect looking at wildfire-resistant thermal insulation products for eco-sensitive buildings to an Argentinian student seeking information about the Argentinian vermiculite industry and historic world trade statistics for vermiculite. I have also fielded inquiries from a Dutch member (Pull Bv.), who asked some searching questions concerning the non-combustibility status of vermiculite, and an Argentinian businessman, who was looking at prospects for the manufacture of pressed vermiculite boards for fireplace construction. So, lately I have been able to address some interesting and thought-provoking issues related to our industry.

At the moment, the entire TVA Board, executive director and technical support spokesperson are taking a look at association membership and renewals. In the last renewal year, we have seen some longstanding members not renew mainly due to the economic climate at the moment. It is extremely important that the TVA Board and executive director make great efforts to address this imbalance by ensuring the current membership needs are fulfilled and that we actively promote new membership opportunities.

The program planning for the TVA meetings next year is well under way, and both the chosen locations and interests of the European membership will be better addressed in this coming year.

News Regarding Vermiculite Mines

Russia – Kovdorslyuda LLC: Unfortunately, in 2012, the vermiculite mine at Kovdor closed, and as of September 2013 Kovdorsluda was declared bankrupt. Plans are under way to begin a process whereby the company Kovdorsluda LLC and its assets may be offered for sale. The mine closure and potential sale are principally the result of reducing prices of vermiculite concentrate and phlogopite mica in the global market combined with increasing competition and a lack of currently available capital investment to upgrade the operation to meet the demands of the current vermiculite market.

Based at Kovdor in the Murmansk region on the Kola Peninsula of Russia, Kovdorslyuda LLC operated phlogopite mica and vermiculite mines. The company had capacity to produce up to 75,000 tpa (tonnes per annum) of vermiculite...
concentrate, and 15,000m³ per year of exfoliated vermiculite from the same mine complex.

Mined vermiculite ore was crushed before screening and washing. After the waste rock has been separated, the vermiculite ore was processed by successive de-sliming, jigging, de-watering, drying and final dry sizing and beneficiation to produce the various different grades of vermiculite concentrates, from the KVK – 0.5 grade (0.18 – 0.5mm) to the KVK – 16 grade (8 – 16mm).

Through affiliate companies, Kovdorslyuda LLC also produced exfoliated vermiculite and vermiculite fireproof and insulation boards.

Through affiliate companies, Kovdorslyuda LLC also produced exfoliated vermiculite and vermiculite fireproof and insulation boards.

The company provided the highest degree of enrichment of vermiculite ore in Russia. A new vermiculite mine and operation was opened in the year 2000, and concentrate from this operation was of a very high purity level necessary to meet international needs.

Production data from 2007 indicated that 19,400 tonnes of vermiculite concentrate were produced. In autumn 2010, the plant was reportedly placed on a care and maintenance basis. Prior to 1991, however, production of concentrate was reported as exceeding 40,000 tpa. The main consumers of vermiculite concentrate produced by Kovdorslyuda are construction and metallurgical companies.

Historically, the company processed much of the concentrate in-house, but from 2006 increasing quantities have been sold to external exfoliators and users.

Kovdorslyuda has also exported vermiculite concentrate to Slovenia, Ukraine, Poland, Sweden and Finland. The volume of exports has fluctuated between 775 tpa and 4,050 tpa in recent years.

Former TVA member Sibelco Nordic in Sweden once acted as a trader for Kovdor vermiculite as well as using product from Kovdor to exfoliate in Sweden. However, in recent years, the lack of Kovdor vermiculite has been one of the reasons why Sibeloc Nordic has latterly partnered with Brasil Mineros.

Sergey Rybin has informed me that the Russian vermiculite industry is relying on ores from other smaller Russian mines and imported Chinese, South African and Brazilian material.

Zimbabwe – Shawa Vermiculite (IMERYS): The world renowned Industrial Minerals (IM) magazine has briefly covered the changes in Zimbabwe. The wording below provides verbatim quotes from IM online.

Imerys agrees to Zimbabwe shared ownership plan for Samrec vermiculite mine
by Siobhan Lismore-Scott. Published Aug. 29, 2014
If reports are to be believed, it means that Imerys will have to relinquish 51% of its share in Samrec, one of the largest vermiculite deposits in the world. Production figures from the USGS suggest that it has not been running at capacity however, and Imerys’ vermiculite arm contributes very little to the company’s overall revenue stream, so the move is likely to have a minimal affect [sic (effect)] on the mineral giant’s overall health.

Global leading industrial minerals producer Imerys SA is rumoured to have agreed to a local shared ownership plan with the Zimbabwean government over its Samrec vermiculite operation in the country. According to reports published in the Source, a Zimbabwean news service, Imerys will pare down its interest in Samrec Vermiculite...

Imerys confirms shared ownership of Samrec vermiculite mine
by Siobhan Lismore-Scott. Published Sept. 2, 2014
Imerys is just one of several companies operating in Zimbabwe that...
must adhere to the shared ownership scheme.

Leading industrial minerals producer Imerys SA today confirmed rumours that it has agreed to a shared ownership scheme for its Samrec Vermiculite Zimbabwe business.

“Imerys will retain 49% as required by the law and the balance will be split between the community, employees and a fully indigenised Zimbabwean private company,”...

**Vermiculite News from the United States of America**

**Dillon Montana:** Some rather bizarre news has come out from the mothballed Dillon, Montana, mine, which the TVA visited a few years ago.

**Dillon Vermiculite Mine: Two men charged with bilking investors in Sask**

*CTV Regina News, Published July 31, 2014*

RCMP have laid charges against two men after dozens of investors, including some in Saskatchewan, lost $1.5 million in an alleged investment scam.

An investigation was launched after Saskatoon police received a complaint that several investors in Saskatchewan, Manitoba, Ontario and Alberta had been defrauded by a business in Barrie, Ont.

The investigation revealed that over 160 Canadians were enticed to invest in a vermiculite mine or mining rights in Dillon, Montana, through a company called BHF Waste Management.

Mounties allege investors were led to believe that they had bought the mining rights directly from a business in Dillon, when in fact they were paying an inflated price to a shell company with the same name, which was registered in the country of St. Kitts and Nevis.

RCMP say the two men behind the alleged investment scheme controlled the shell company’s two offshore bank accounts in the Bahamas.

Multiple individuals played a role in the alleged investment scam, Mounties said, and several people benefitted from the laundering of the investment funds or wages paid from that money.

Douglas Stewart McLeish Scott, 66, of Toronto and Cranbrook, B.C., and Claude Gerard Taillefer, 63, of Shanty Bay, Ont., each face several charges, including fraud over $5,000, money laundering and participating in a criminal organization.

Both men are currently being sought on arrest warrants.

**RJ Lee Group:** The New York State Department of Health has approved RJ Lee Group’s method for analyzing asbestos content in spray-on fireproofing containing vermiculite, as explained in the article below.

**RJ Lee Group’s Vermiculite Analysis Method Approved by NYS Department of Health**

*Monroeville, Pa., Posted Aug. 4, 2014*

RJ Lee Group Method LAB.055.1 has been approved by the New York State Department of Health (NYS DOH) for analyzing asbestos content in spray-on fireproofing containing vermiculite (SOF-V). This new method successfully determines whether SOF-V is an asbestos containing material (ACM) in accordance with 10NYCRR 55-2.5, eliminating prior NYS DOH concerns about underreporting of regulated (commercial) and unregulated (naturally occurring) asbestos in samples of fireproofing.


For those of us who attended the TVA meeting in September in Utah, Dr. Eric Chatfield gave an excellent presentation titled “Reliable Determination of Asbestos in Vermiculite and Vermiculite-Containing Materials.” This analytical method has the potential to resolve the concerns of the New York State Department of Health with respect to vermiculite-containing materials and provides the basis for the methodology being provided on a commercial basis by RJ Lee. Contact the TVA headquarters for a copy of Dr. Chatfield’s presentation.

At the same TVA meeting, Don Ewert, an industrial hygienist from the...
RJ Lee Group, described the new LAB.055.1 methodology they now offer and how it’s expected to meet the New York Department of Health requirements.

**Libby Montana:** There is of course no shortage of “news” related to this former mining operation that closed for good more than 23 years ago. Below are the links to a couple of newsworthy items that you might want to read.

- **Idaho State University Professor Jean Pfau identifies possible new autoimmune disease linked to asbestos exposure**  
  *PostAug. 27, 2014*  
  A possible new autoimmune disease caused by exposure to asbestos from mines in Libby, Montana, has been identified by Idaho State University researcher Jean Pfau...

- **The Western News EPA announcement about leaving Libby has legal consequences**  
  *PostAug. 19, 2014*  
  Commentary by Terry Trent, a biologist based in Auburn, Calif.  
  Now EPA is leaving Libby. And, of course, the agency is leaving behind much of the vermiculite that former EPA Director Christie Todd Whitman told you all would be gone when they left...

**Other Vermiculite News**

- **South Africa:** Palabora Copper (Pty) Ltd, a subsidiary of Palabora Mining Company Ltd, is a copper mine that also operates a smelter and refinery complex in the town of Phalaborwa in Limpopo Province South Africa. Whilst copper forms the base-load of its business, Palabora also mines vermiculite from open cast pits to the north and south of the central carbonatite pipe in which the copper mineralization is present. Magnetite (Fe₂O₃), an iron ore byproduct of the copper operation, also now forms a significant and growing part of the company’s business.

  A 9.3 billion rand life of mine expansion plan was awaiting a shareholder decision in late September 2014. This follows the successful pre-feasibility and feasibility study to potentially increase the life of the underground copper mine until 2033. The study presented an option at a 90 percent confidence level to develop a new Lift II mining footprint 450 meters below the current Lift I (which is some 1.2 km below the ground surface already).

  The vermiculite business is, of course, not directly affected by this development, although everyone at Palabora remains confident of the continuation and growth of the integrated business as a whole.

- **Great Britain:** This little snippet in the UK’s Daily Express in which vermiculite was referenced in regard to growing lavender ought to gladden a few hearts after some of the less than entrancing news stories above.

  **How to grow lavender from cuttings in July and August**  
  *Daily Express Newspaper, July 29, 2014, by Deborah Stone*  
  Lavender is one of the loveliest summer garden plants, attracting gently buzzing bees and leaving a sweet-smelling scent as you trail your hand through the purple flower heads...

  …Just add **vermiculite** to some general-purpose compost if you don’t have anything else – the important thing is that it will drain well and graze the shoots as you insert them into the compost.

- **France:** Soprema SA is a new name in the world of vermiculite, although many of us know the name Efisol and there may have been a little confusion within the TVA as to which company in France was which. Perhaps a little history will be useful here.

  The Soprema Group has been an independent family group since it was founded in 1908. Today, they install millions of square meters of waterproofing, roofing and insulation systems across the world.
In 2010, SOPREMA purchased EFISOL, the French leader in the manufacture of insulation products made of polyurethane foam or expanded minerals.

As well as incorporating the Efisol range of Polyurethane insulation products into the Soprema Group, there has been the transformation of two natural products: vermiculite and perlite.

EFISOL’s manufacturing process allows these minerals to be used in a wide array of products and applications including:

- **Vermex**, **Efiperl**: Lightweight aggregate for concrete and insulation
- **Vermaspha**: Superior sound insulation
- **Efimix**: Ready to use, lightweight concrete
- **Perlibeton**: Aggregate for lightweight concrete, insulation and rehabilitation of aged flooring
- **Pannofeu**, **Efilith**, **Efidecor**: Suspended ceilings

Following is some background history on the company:

1974: ELF acquired the Société “La Vermiculite et La Perlite”
1977: ELF takes control of the Société SIS (which is producing rigid polyurethane)
1979: Creation of GIE ELF Isolation, gathering the SIS, “La Vermiculite et La Perlite” companies together
1981: Merger of the two companies specializing in insulation (SIS et La Vermiculite) to become ELF Isolation
1987: The ELF Aquitaine group assigns to the ELF Isolation Holding FIBRASA and to change its name to Efisol, including the integration of the Sibli Company in Belgium
2010: The SOPREMA group acquires Efisol
2011: The CEMI Company is integrated into Efisol
2012: Fusion between Efisol and SOPREMA born of the merger with SOPREMA SAS.

---

**TVA’s TECHNICAL SUPPORT SPOKESPERSON**

Continued from page 8

**Pending Patents** by Mike Darling

A brief review of some recent patent applications related to the use of vermiculite

**Device for sorting crude or treated vermiculite**

*Czech Patent CZ27133 (U1); Priority date: 2014-01-15; Publication date: 2014-07-16*

- **Applicant**: Grena, A.S. (CA)
- **Inventors**: Petran Frantisek (CA)
- **Classification**: International B03B4/00, B07B4/08, C04B20/06
- **Application number**: CZ20140029084U 20140115
- **Abstract**: Not available

**Spectral method for determining the source of expanded vermiculite insulation in attics and walls**

*US Patent US8751169 (B1); Priority date: 2010-09-29; Publication date: 2014-06-10*

- **Applicant**: Swayze, Gregg A. (US), Lowers, Heather A. (US), Clark, Roger N. (US); USA as represented by the Secretary of the Department of the Interior
- **Inventors**: Swayze, Gregg A. (US), Lowers, Heather A. (US), Clark, Roger N. (US)
- **Classification**: International C04B14/20, C04B14/38, G01N31/00
- **Application number**: US201113247682 20110928
- **Priority numbers**: US201113247682 20110928; US20100387685P 20100929
- **Abstract**: A method for identifying the source of vermiculite insulation in situ using a portable spectrometer with a light-emitting contact probe and a personal computer. Identification is accomplished using NIR reflectance spectroscopy and absorption band depth ratios

Continued on page 10
to differentiate between vermiculite sources and to test for the presence of amphibole, talc or serpentine contaminants in vermiculite insulation.

**Device for injecting dilatable vermiculite**

*Japanese Patent JP2014064610 (A); Priority date: 2012-09-24; Publication date: 2014-04-17*

- **Applicant:** NGK Insulators Ltd.
- **Classification:** International A62C35/02
- **Application number:** JP20120209984 20120924
- **Abstract:** Not available

**Vermiculite production method**

*Korean Patent KR20140044248 (A); Priority date: 2012-10-04; Publication date: 2014-04-14*

- **Applicant:** Dong Hwa Dev. Co. Ltd.
- **Inventors:** Kwag Ge Bong [KR], Kim Jin Seok [KR]
- **Classification:** International B28B13/00, B28B3/02
- **Application number:** KR2012010570 20121004
- **Priority number:** KR2012010570 20121004
- **Also published as:** KR101405709 (B1)
- **Abstract:** The present invention relates to a vermiculite board production method, which comprises a series of repeated steps: manufacturing a first pressed board through a material transferring frame and a first press; moving the first pressed board to a thermoforming press through a first pressed board transferring device; moving the first pressed board inside the first pressed board transferring device onto a shaping plate of the thermoforming press through a multi-cylinder device; separating a finished board stuck on the shaping plate of the thermoforming press from the shaping plate of the thermoforming press through a finished board taking device; and stacking the finished board on the pallet.

**Mica ore and vermiculite using eco-functional polyurethane sponge and sponge form**

*Korean Patent KR20140043648 (A); Publication date: 2014-04-10*

- **Applicant:** Kim Hong Bum [KR]
- **Inventor:** Kim Hong Bum [KR]
- **Classification:** International C08J9/00, C08K3/34, C08L75/04
- **Application number:** KR20120109899 20121002
- **Priority number:** KR20120109899 20121002
- **Abstract:** The present invention relates to eco-friendly functional sponge and urethane sponge foam using illite and vermiculite and, more specifically, to eco-friendly functional sponge and urethane sponge foam using illite and vermiculite manufactured by: creating the vermiculite, which has a specific gravity of 0.25-0.50 g/cm^3 as to be ultralight and a vesicular structure, through a process for firing the illite, a kind of granite, at high temperatures over 1,000[deg.]C and a process for expanding 8 to 20 times due to pressure by evaporation of moisture in the illite at the high-temperature firing process; pulverizing the vermiculite into 500-200 mesh in size; and mixing 10-20 wt% of the illite and vermiculite particles and 80-90 wt% of polyurethane (PU) resin. The eco-friendly functional sponge and urethane sponge foam are very effective in absorbing and reducing harmful substances such as formaldehyde, volatile organic compounds (VOC) and endocrine-disrupting chemicals causing Sick House Syndrome in living space, deodorizing and dehumidifying, emitting far infrared radiation and anions and dissociating cations, thereby reducing the emission of various harmful substances so controlling the occurrence of diseases. Also, the eco-friendly functional sponge and urethane sponge foam have excellent functions in cleaning air and controlling humidity by the structural characteristic of the illite and vermiculite that is porosity...
after the high-temperature firing process, thereby controlling the occurrence of many diseases, including respiratory diseases and skin diseases.

**Using a functional green mica, vermiculite ore and non-woven fabric**

*Korean Patent KR20140026018 (A); Publication date: 2014-03-05*

- **Applicant:** Kim Hong Bum (KR)
- **Inventor:** Kim Hong Bum (KR)
- **Classification:** International D04H1/407, D06M11/00
- **Application number:** KR20120092896 20120823
- **Abstract:** The present invention relates to an eco-friendly, functional non-woven fabric using mica ore and vermiculite. More particularly, the eco-friendly, functional non-woven fabric is configured using mica ore and the vermiculate by grinding the vermiculite using a grinder and mixing mica ore of 50 to 100 mesh, a corpuscular vermiculite of 10 to 20 weight %, an acrylic ester resin of 60 to 70 weight % and a ground fiber yarn that is the material of the non-woven fabric. In a process of performing high-temperature plasticity for a mica ore that is a kind of granite at a temperature of not more than 1,000\(^\circ\)C, the vermiculite is generated, has a specific gravity of 0.25-0.50 g/cm\(^3\) and is therefore light and has a porous structure when the mica is expanded 8 to 20 times by pressure, and moisture inside the mica is evaporated in a process of high-temperature plasticity. The eco-friendly functional non-woven fabric has the ability to reduce hazardous substances, such as Formaldehyde, volatile organic compounds (VOCs), endocrine disruptors and the like that cause Sick House Syndrome within a living space, and has deodorization and dehumidification functions, far infrared or anion radiation and excellent cation decomposition ability, thereby reducing the release of various hazardous substances and suppress the occurrence of various diseases. Also, due to the properties of mica ore and the vermiculite having a large number of pores, the eco-friendly functional non-woven fabric has excellent air purification and humidity control functions to thereby suppress various diseases, such as skin diseases, respiratory diseases or the like.

**Unfired vermiculite foaming acoustic board**

*Chinese Patent CN103758230 (A); Publication date: 2014-04-30*

- **Applicant:** Xu Qinghua
- **Inventors:** Chen Liping, Huang Yunjin, Huang Feixiang, Xu Qinghua, Yuan Changbing, Xu Shengying
- **Classification:** International C04B24/22, C04B28/00, C04B38/02, E01F8/00, E04B1/86; Cooperative Y02E60/122
- **Application number:** CN20131699775 20131218
- **Abstract:** The invention discloses an unfired vermiculite foaming acoustic board. According to the technical scheme, a built-in frame is placed on a mould flat; after a short steel tube in the built-in frame is inserted into a stand column, a vermiculite cement foaming agent is injected into the periphery of the built-in frame, and the built-in frame is completely inlaid into the vermiculite cement foaming agent and is then maintained according to a conventional maintenance method of cement products and packed to form the unfired vermiculite foaming acoustic board finished product; the vermiculite cement foaming agent is composed of raw materials such as expanded vermiculite, high-viscosity attapulgite clay and cement; the vermiculite cement foaming agent and the built-in frame form an integrated body after the vermiculite cement foaming agent is solidified, and therefore the overall strength, bend resistance and the actual use effect of the unfired vermiculite foaming acoustic board are improved. The unfired vermiculite foaming acoustic board can effectively control noise pollution, has the thermal insulation and air purification functions and is suitable for being installed on facilities, such as expressways, viaducts, subways, factories and public places.
Pending Patents

Continued from page 11

Vermiculite-based positive pole material for lithium-sulfur battery and preparation and application methods thereof

Chinese Patent CN103715403 (A);
Publication date: 2014-04-09

Applicant: Xiangtan University
Inventors: Pan Yong, Pan Jun An, Xie Shuhong, Ma Zengsheng, Cheng Juanjuan, Lei Weixin, Jiang Zhijie, Wu Cheng
Classification: International H01M4/13, H01M4/36; Cooperative Y02E60/122
Application number: CN20131699775 20131218
Abstract: The invention discloses a vermiculite-based positive pole material for a lithium-sulfur battery and preparation and application methods thereof. According to the positive pole material, vermiculite is used as a skeleton, and a sulfur-loaded composite material is obtained through infusing elemental sulfur to vermiculite and then is wrapped with a conductive substance. According to the vermiculite-based positive pole material for the lithium-sulfur battery and the preparation and application methods thereof, by using vermiculite, the dissolution of polysulfide can be effectively reduced, and the volume expansion of sulfur during charging/discharging can be effectively inhibited, so that the cycling performance of the lithium-sulfur battery is improved; due to the wrapping of the conductive substance, the conductivity of the material is enhanced, and the capacity of the lithium-sulfur battery is increased. The preparation process of the positive pole material is simple, and vermiculite belongs to a natural environment-friendly material and is low in cost, so that the industrialization of the lithium-sulfur battery is facilitated; meanwhile, due to the introduction of vermiculite, the industrial transformation and upgrading of nonmetallic minerals are promoted.

Vermiculite decorative plate with functions of fire prevention, sound absorption and environmental protection

Chinese Patent CN203499166 (U);
Publication date: 2014-03-26
Applicant: Guo Yingnan
Inventor: Guo Yingnan
Classification: International B32B19/04, E04F13/075
Application number: CN20132484508U 20130809
Abstract: The utility model discloses a vermiculite decorative plate with functions of fire prevention, sound absorption and environmental protection. The vermiculite decorative plate is characterized in that the decorative plate comprises an expanded vermiculite plate core layer (2), wherein an outer surface layer (1) and an inner surface layer (3) are respectively bonded on both sides of the expanded vermiculite plate core layer (2). The vermiculite decorative plate can be used for multiple home decorations, such as furniture, walls and partition walls, has the functions of fire prevention, environmental protection and sound absorption and has the advantages of attractive appearance, safety and health.

Vermiculite board, composite panel and its manufacturing method

Korean Patent KR20140017156 (A); Publication date: 2014-02-11
Applicant: Dae Shin Melamine Ind. Co. Ltd. (KR)
Inventor: Kim Won Hwan (KR)
Classification: International C04B28/32
Application number: KR20120083618 20120731
Also published as: KR101373627 (B1)
Abstract: The present invention relates to a vermiculite board composite panel and a method for manufacturing the same. The vermiculite board composite panel is formed with a vermiculite board, which has strength, wherein thermal resistance, purification properties, deodorization properties, sound-absorbing properties and soundproof properties are excellent and a function for controlling humidity is also excellent by absorbing moisture when coming into contact with the moisture and then emitting the moisture when air is dry, and weakness in which the vermiculite board is easily damaged as durability is weak.
Tell us about your membership in TVA, what you enjoy about your membership and how you have been involved in the organization.

We have been TVA members since 2007. The TVA was the ideal forum for our group to interact with a wide cross-section of the vermiculite industry as we moved toward commercializing our microwave exfoliation technology.

What I enjoy most about our membership is the networking! When all the major miners and a lot of exfoliators and downstream users of vermiculite gather in the same room, it saves us a lot of air miles. The members are always extremely helpful and willing to help where they can. This has led to some strong relationships over time.

I am new to the TVA Board. I have some responsibilities for ensuring that the needs of members in different areas of the world are being addressed by the TVA.

What are you hoping the association will accomplish in the upcoming year?

I hope for increased overall membership by communicating the significant value that the TVA offers to organizations that have not previously been involved in the TVA.

Tell us about your company.

We are a small start-up that is driving forward the commercialization of our patented microwave exfoliation system. In time, we hope that it will offer a genuine alternative to the traditional furnaces used to exfoliate vermiculite today.

How long have you been in this industry, and what is the biggest change or challenge you’ve seen over the years?

We are quite new to the industry, but in our short time involved we have realized just how broad all of the companies involved in vermiculite are. No two exfoliators do things the same way. That makes our work very interesting.

What does the future hold for the vermiculite industry?

The future looks interesting. The material is being used in increasingly interesting ways, and I hope that by increasing the public awareness of the incredible properties of this natural material we will continue to find new applications that we haven’t yet thought of.

By increasing the public awareness of the incredible properties of this natural material, we will continue to find new applications that we haven’t yet thought of.
TVA Elects New Leadership

The Vermiculite Association elected a new Board of Directors at its Annual Meeting held Sept. 11 in Park City, Utah. The following officers will lead the association in 2015:

President:
Damien McDermott, Isolatek International

Vice President:
Sandi Delarm, Palabora America

Secretary-Treasurer:
Andréa Turquino, Brasil Minerios

Immediate Past President:
Kathryn Louis, Sun Gro Horticulture Canada Ltd.

Upon his election, incoming President McDermott noted that he is privileged and honored to serve on the TVA board. He has observed a lot of changes in the vermiculite industry over the past few years, including improvements in business and supply. Although there are still some tough items, such as regulatory issues, that need addressed, he believes TVA is coming together and he is positive about the direction the organization is heading.

Also during the meeting, the following members were elected to a new term on the Board of Directors and will serve through 2017:

- Donna Frassrand Chatfield, Specialty Vermiculite Corporation
- Jinyao Li, DFL Minmet Refractories Corp
- Dan Metz, Virginia Vermiculite

They join the following members, who will continue to serve existing terms on the Board:

- Dr. George Rice, National Centre for Industrial Microwave Processing, University of Nottingham (2013-2015)
- Damien McDermott, Isolatek International (2014-2016)
- Eric Moeller, Nanoparticle Consultancy LLC (2014-2016)
- David Stonier, Dupre Minerals (2014-2016)

Committees Provide Updates During TVA Annual Meeting

During TVA’s Annual Meeting in September, updates were provided for the following TVA committees:

Communications Committee – The committee, which will be meeting in the near future, focuses on the association’s newsletter, the website and various technical documents.

Finance Committee – Volunteers are also needed to serve on this committee, which will be focusing on non-dues revenue. It was noted that mining member companies can help TVA by looking at the true size of the industry and considering a possible certification or accreditation program within the industry.

Geographical Committee – The goal of this committee, which is in its formative stages, is to expand its focus beyond North America and listen to members outside of the United States.

Meetings Committee – The committee is planning the 2015 mid-year strategic planning meeting, which will be held in Amsterdam, The Netherlands, and is open to all members and the 2015 Annual Meeting, which will be held next fall in Europe.

Membership Committee – The committee has contacted several non-renewing members to find out why they
have not renewed their membership. Some of the feedback indicated economic or financial challenges or the belief that they have not gotten a lot out of the organization. The Board discussed the need to look at the value provided to members and to better market the advantages to members.

Technical Committee – This committee is in its infancy, and goals for the committee are being developed by the Board.

Anyone interested in serving on any of these committees should contact Michelle Keyser at communications@vermiculite.org.

TVA Welcomes New Director of Communications

Michelle Keyser recently joined The Vermiculite Association as the Director of Communications. She will oversee the communications and marketing functions of the association.

Michelle has worked in public relations and marketing for more than 25 years where she has experience with developing, implementing and evaluating corporate communications, marketing strategies, brand creation and management, strategic messaging, media relations, advertising initiatives and new media.

She is skilled at identifying stakeholders, targeting audiences and developing key messages to build internal and external brand identity and loyalty.

During her career, Michelle has worked in both the non- and for-profit sectors. She has spent the last several years as a PR and marketing consultant in a variety of industries including, but not limited to, government, specialty food, health care, association management, manufacturing, retail, long-term health care, faith-based and commercial.

Michelle is active in her community and professional organizations. She is an international speaker and works as a mentor for small businesses and nonprofits worldwide. She holds an Associate of Science degree in accounting and earned a Bachelor of Arts degree in marketing and communications from Messiah College.

She also did graduate work in communications/journalism at Shippensburg University of Pennsylvania.

Welcome, New Member

The following member recently joined The Vermiculite Association. Please join us in welcoming them to the association:

Luyu Royal Gold Building Materials (He Yuan) Co., Ltd., (contact: Barin Wang), Shenzhen, China
The Vermiculite Association
2207 Forest Hills Drive, Harrisburg, PA 17112
717-238-9902 • 717-238-9985 fax

www.vermiculite.org

Executive Director:
Denise Calabrese
tva@vermiculite.org

Newsletter Editor:
Amy Bobb
tvaeditor@hotmail.com

TVA's staff wants you to get the most out of your experience with TVA. We are available to serve you, so please do not hesitate to contact staff with any question or concern that you may have. For a full staff listing, please click here.

Articles for Lightweight News

TVA is always looking for articles for this newsletter to keep its contents relevant for our members. Articles should range from 200 to 500 words, and photos are welcome. Articles can be about a unique project you’ve been involved with, your company’s community involvement, an industry hot topic, an honor or award—really, anything you think your fellow TVA members would want to read about.

The deadline to submit for the Winter 2015 issue (published in February) is Friday, Jan. 9. Email articles to Amy at tvaeditor@hotmail.com.

Lightweight News is an e-publication of The Vermiculite Association. It is published four times per year:

- Winter issue is published in February
- Spring issue is published in May
- Summer issue is published in August
- Fall issue is published in November

Material in this e-newsletter may be republished with permission of TVA and with proper line credit. Mention of commercial products in this publication is solely for information purposes, and endorsement is not intended by TVA. Material does not directly reflect the opinions or beliefs of the board or staff.