

EVER PADS

Rubber Buffer for Vibratory Hammer



OUR PROMISE
Quality • Service • Integrity

TABLE OF CONTENT

<u>Introduction</u>	<u>01-02</u>
<u>Vibratory Hammer & Challenge</u>	<u>03-10</u>
<u>EVEPADS Rubber Elastomer Solutions</u> - Testing and Evaluation	<u>11-17</u>

EVERPADS Rubber Buffers. Premium Parts for Premium Performance.

After 60 years of rubber experience and 30 years of road machinery, EVERPADS continues to innovate solutions that make us the best at manufacturing premium spare parts without the premium cost. EVERPADS is the world's leading aftermarket spare parts manufacturer for heavy equipment—a reputation we don't take for granted.

We understand our customers' challenges in completing their projects on time and on budget. It's what led our founder Leo Chiang, in 1995, to use his advanced knowledge of high-grade solid rubber tires to invent the first bolt-on rubber track pad. Mr. Chiang knew equipment owners needed reliable, cost-saving solutions.

Thirty years later, our mission continues: Produce high-performance and cost-efficient products for any construction environment, ultimately making our world better. We do this by manufacturing the best-designed products that can almost double or more service life because of our superior rubber technology and focus on quality in contrast to competitors that have entered the market and concentrated on low-cost pricing with inferior rubber materials.

Key Benefits for Our Customers:

- Expansive Manufacturing Plant. No Outsourcing.
- Highest Quality Grade of Materials. 100% Natural Rubber.
- Proprietary Rubber Compounds with Formula E Technology.. Exclusively Ours.
- Quality Control Laboratory. Complete Customer Satisfaction.

In summary, our customers get premium spare parts without premium costs.



VIBRATORY HAMMER

Formula E Rubber Buffer

Like our other rubber products, our rubber buffers are also designed to be long lasting and flexible. This makes them fully capable of absorbing the vibrations, preventing the machine from malfunctioning.



RUBBER BUFFER WITH FORMULA E

Vibratory Hammer

RUBBER BUFFER WITH FORMULA E

Vibratory Hammer

Challenges of Vibratory Hammers' Rubber Elastomer

Vibratory hammers generate high-frequency vibrations and impact forces to drive piles into the ground. Rubber elastomers are used to dampen these vibrations and protect the surrounding environment from excessive noise and damage. However, the effectiveness of rubber elastomers can be affected by factors such as soil conditions, temperature, and moisture levels.

Top Challenges:

- Susceptibility to wear and tear due to repeated vibrations and high impact forces, leading to reduced effectiveness and potential failure
- Impact of temperature and moisture levels on the performance of the rubber, further complicating material selection and design
- Compatibility with different soil conditions, which can greatly affect the performance of the rubber and require different materials for different soil types
- Need for careful selection and testing of rubber materials to ensure durability and resilience throughout the lifespan of the vibratory hammer.

EVERPADS Formula E Rubber Buffer for Vibratory Hammer

The Formula E Rubber Buffer series retrofits vibratory hammers to operate in deep foundations. Our buffers feature low-heat rubber technology with tear-resistant rubber compounds for intense driving or extracting work.

Gain up to 3x the service life.

- 3x the service life than standards: low heat generation technology
- Customizes maximum driving/extracting force based on need: currently up to 120 kN
- 6 adhesive treatments to prevent unexpected rupture
- 3 reinforced treatment steel plates for your harshest work projects





REVOLUTIONIZING DURABILITY:

FORMULA E LOW-HEAT GENERATION RUBBER TECHNOLOGY - EXTENDING LIFESPAN AND REDUCING MAINTENANCE COSTS IN VIBRATORY HAMMERS

REVOLUTIONIZING DURABILITY

Vibratory Hammer

Challenge:

Degradation and Durability Challenges of Rubber Elastomers in Vibratory Hammers

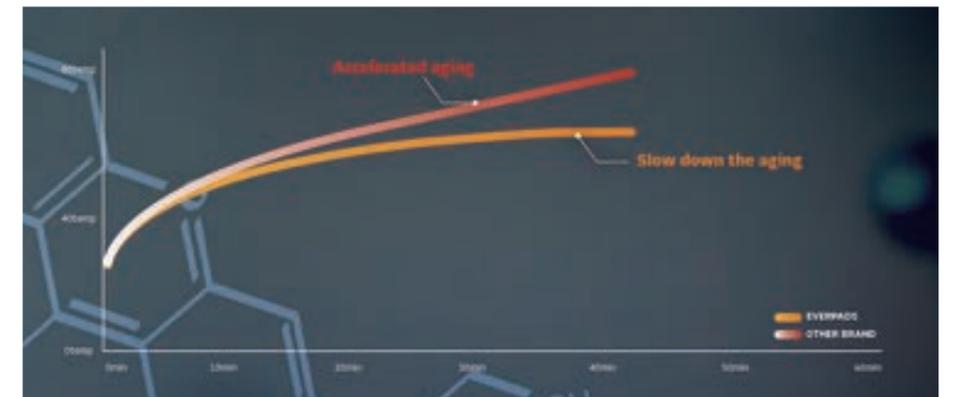
Rubber elastomers in vibratory hammers is the potential for degradation over time. Vibratory hammers generate high levels of stress and strain on the rubber elastomers, which can lead to fatigue and failure. Additionally, exposure to environmental factors such as sunlight and moisture can degrade rubber elastomers over time, reducing their effectiveness and lifespan.

Solution:

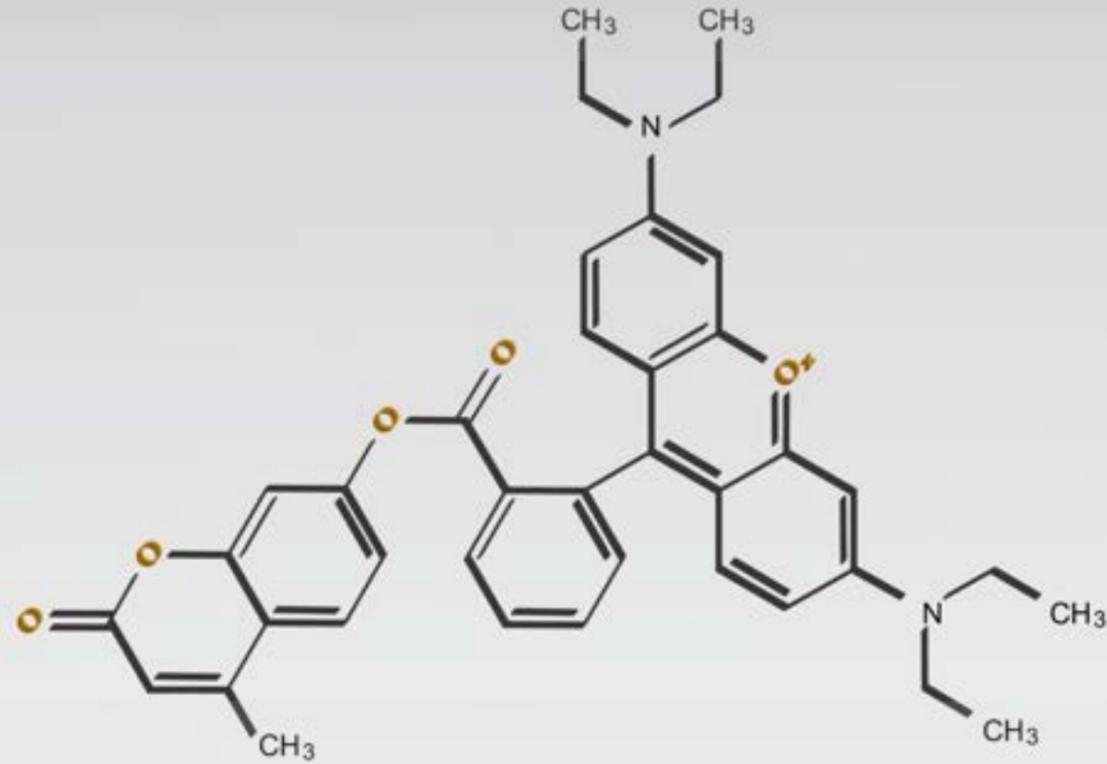
FORMULA E Lowheat Generation Rubber Technology

EVERPADS Low-heat Generation Rubber Technology offers a solution to the challenge of rubber degradation over time by thermal stress in vibratory hammers. Our Formula E technology has been specifically developed to address this issue by controlling the rubber temperature at 63 Celsius or 145 Fahrenheit through reformulating the rubber molecule. This reformulation significantly slows down the rubber aging process, effectively maintaining the rubber's physical properties such as tear resistance and tension.

The result of our Formula E technology is a rubber buffer that extends the service life of vibratory hammers' rubber elastomers by 3-4 times compared to the standard. This results in significant savings on maintenance costs for foundation construction projects, reducing these costs by 60-72%. Furthermore, our technology eliminates the cost of downtime and lost productivity due to machine repairs or replacement, which can be a significant expense for construction companies.



The result of our Formula E technology is a rubber buffer that extends the service life of vibratory hammers' rubber elastomers by 3-4 times compared to the standard. This results in significant savings on maintenance costs for foundation construction projects, reducing these costs by 60-72%. Furthermore, our technology eliminates the cost of downtime and lost productivity due to machine repairs or replacement, which can be a significant expense for construction companies.



MAXIMIZING EFFICIENCY:

THE SPECIAL RUBBER COMPOUND - A TEAR-RESISTANT INNOVATION FOR ENHANCED PERFORMANCE IN VIBRATORY HAMMER

MAXIMIZING EFFICIENCY

Vibratory Hammer

Challenge:

Balancing Performance and Durability in Rubber Elastomers for Vibratory Hammers

Rubber elastomers in vibratory hammers are subject to high levels of stress and strain during operation, which can cause significant wear and tear on the rubber. The constant driving and extracting force generated by the hammer can cause the rubber to crack and deform, leading to costly repairs or replacement. To withstand these harsh conditions, rubber elastomers require high levels of tear resistance.



Solution:

The Tear-Resistant Rubber Solution for Vibratory Hammers

Tear-resistant Special Rubber Compound

Formula E absorbs all the roughness by operating the vibratory hammer with our high-damping rubber buffer. The unique rubber compound allows operators to manage every sudden changing driving/extracting force by enhancing the molecular bonds that deliver the most robust rubber tear resistance for your machine



SOPHISTICATED QUALITY CONTROL AND BENCH FORCE- TESTING METHOD

SOPHISTICATED QUALITY CONTROL AND BENCH FORCE TESTING METHOD

Vibratory Hammer

Challenge:

Challenge of Balancing Performance and Durability of Rubber Elastomers in Vibratory Hammers

Another challenge with vibrator hammer is the need to balance performance with durability. Rubber elastomers that are too soft or too hard may not effectively dampen vibrations or may wear out quickly, respectively. Furthermore, different soil conditions and temperature/moisture levels can require different rubber elastomer properties for optimal performance, which can be difficult to predict without extensive testing and evaluation.

Solution:

Sophisticated Quality Control and Bench Force Testing Method

At EVERPADS, we understand the critical role that testing and evaluation play in ensuring the reliability and performance of rubber elastomers used in vibratory hammers. As part of our commitment to quality and durability, we conduct a range of rigorous testing procedures on all of our rubber products. Our fatigue testing evaluates the ability of our rubber elastomers to withstand repeated stresses and strains, ensuring that they can perform effectively over an extended period.

- Rubber fatigue testing
- Tear Resistance test
- Shear force testing

Rubber Fatigue Testing

Fatigue testing evaluates the ability of our rubber elastomers to withstand repeated stresses and strains, ensuring that they can perform effectively over an extended period.



Tear Resistance Test

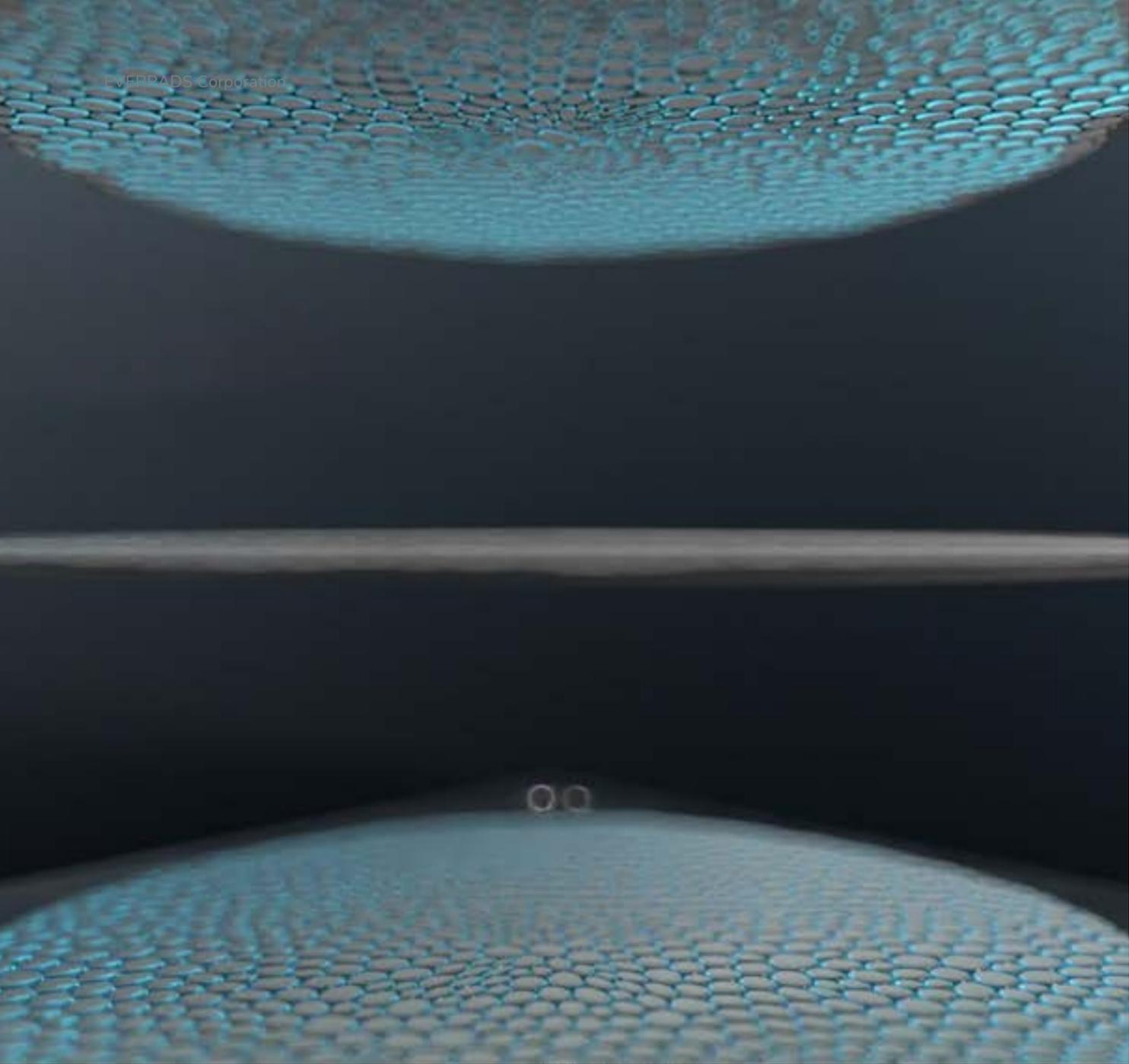
We also conduct rubber pulling tests to assess the tear resistance capability of our rubber elastomers. This testing allows us to ensure that our products meet the highest standards for tear resistance, providing maximum protection against wear and tear.



Shear Force Testing

We conduct shear force testing to evaluate the extracting force of our rubber elastomers, ensuring that they meet the specific requirements of our clients' applications. By conducting these comprehensive testing procedures, we can provide our customers with the assurance that our rubber elastomers are capable of performing effectively under even the most demanding conditions.





**WITHSTAND HARSH
CONDITIONS**
Vibratory Hammer

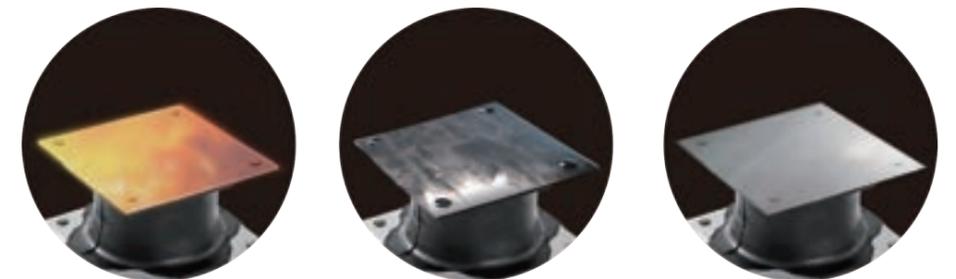
WITHSTAND HARSH CONDITIONS:

MULTI-PROCESSING TREATMENT - CRAFTING INVINCIBLE RUBBER ELASTOMER STEEL PLATES FOR VIBRATORY HAMMER OPERATIONS

Enhanced Durability through Multi-Processing

Treatments: STEEL PLATE

EVERPADS uses a multi-processing treatment approach to ensure that rubber elastomer steel plates can withstand the harsh conditions of vibratory hammer operations. This approach includes a combination of heating, electroplating, and anti-corrosion treatments to increase the durability of steel plate. By subjecting the steel plates to high temperatures during the heating treatment, the steel plate can withstand high tension force. Electroplating further enhances the wear resistance of the rubber elastomers, while anti-corrosion treatments protect the plates from environmental factors such as moisture and rust. These multi-processing treatments provide a superior level of protection, ensuring that EVERPADS' rubber elastomer components are able to withstand the demanding conditions of vibratory hammer operations, providing longer service life and reducing maintenance costs.



Superior Adhesion with Six Unique Adhesive Treatments

At EVERPADS, we understand the critical importance of ensuring that rubber elastomer steel plates remain securely attached during vibratory hammer operation. That's why we have developed six unique adhesive treatments to provide maximum adhesion between the rubber elastomer and steel plate.

Our adhesive treatments are designed to provide superior bonding capabilities, ensuring that the rubber elastomer remains firmly attached to the steel plate even under the most demanding conditions. These treatments include both chemical and mechanical bonding techniques, providing a range of options to suit specific applications and requirements.



RUBBER BUFFER OEM/ODM SOLUTION

The Opportunity:

The most concern of machinery manufacturers or dealers is customer satisfaction (quality of your machine), scalability (ability to expand), and stability (parts supplier deliverability).

The Solution:

At EVERPADS Intelligence Manufacturer OEM Solutions, we understand that you want to take your machine to market with reliable products, support, and technology to differentiate it from the competition. Doing so will increase your potential for success and that is why partnering with us is the best decision you can make. Together, we can design the combination of capabilities to make you #1.

RUBBER BUFFER OEM/ODM SOLUTION

Building your Project

The time it takes from initial communication to product launch is merely 1 MONTH. EVERPADS saves our clientele time and money. We are the manufacturer with the best technology that allows our clients to be #1.

1. We schedule a meeting with you and our team of developers where we discuss your needs and requirements.
2. The development team then calculates the compound rubber to meet your specified requirement.
3. We conduct tests with shear force bench for maximum extracting and displacement.
4. We communicate the results with you.
5. You test the new rubber buffer with the new machine.
6. You communicate your results with us.
7. We make any revisions necessary.
8. Product launch!

Rolling Out Ready Designs

Your unique vibratory hammer/compactor requires unique solutions and that is exactly what you'll get with our ODM solutions. You will also experience:

1. Our experts will be with you from beginning to end.
2. You will have immediate access to our patent designs.
3. Our tailor-made rubber compound technology will meet your specific requirements.
4. We offer the utmost professional experience.
5. You will be able to give your customer consistent quality, positioning you at the top of the competition in your market.
6. Our patented key technology adds value to your hammer or compactor.

Customizing your Solution: Sheer Force, Dimension

If you can dream it, we can deliver it. Our clients trust our OEM/ODM solutions because we consistently deliver complete solutions. No matter what your needs are, we can meet them, and we offer solutions that are tested and validated.

Branding and Personalization:

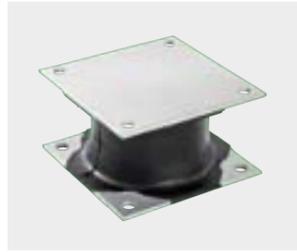
We help you improve your brand image by putting your own logo designs on the products.

Fit and Function:

Ensuring the perfect fit and function is essential. After you have communicated all of the specifications and needs, our expert will go through a 3D planning system to accommodate your vibratory hammer and roller. Multiple quality control and sheer force testing approvals are utilized to guarantee that every product meets the maximum sheer force, and offers a complete solution.

Specialized Environment Design:

Our clients work in various environments, including bridges, residential, and non-residential construction projects. Your work might entail constructing a project on rough, dusty terrain, or on the ocean where durability must withstand wet and salinity conditions and extreme temperatures. From department buildings to infrastructures, efficiency and safety are paramount. Therefore, specialized rubber buffers need to be functional and reliable. In these highly regulated and time-sensitive construction projects, failure is not an option. Neither is churn. EVERPADS manufacture and development provide designed solutions that withstand wide temperature ranges, sand and dust, high humidity, shock, and vibration.



IC0101 Series



IC0201 Series



IC0301 Series



IC0401 Series



IC0501 Series



IC0601 Series



IC0901 Series



IC1101 Series



IC1201 Series



IC1401 Series



IC1501 Series



IC1601 Series



Rubber Buffer for Vibratory Hammer

HEADQUARTER

EVERPADS CO., LTD.

Tel: + 886 4 2358 2531/2000
Fax: + 886 4 2358 9090

Add: No.83,32nd Road,Taichung
Industrial Park,Taichung,
40768,Taiwan ROC

Email: service@everpads.com

USA BRANCH

EVERPADS INC.

Tel: + 1 215 420 7086 (toll free)
Fax: + 1 888 928 7237 (toll free)

Add: 320 Constance Dr,Suite 5
Warminster, PA 18974

Email: america@everpads.com

EUROPE BRANCH

EVERPADS B.V.

Tel: + 31 10 415 7820
Fax: + 31 10 415 6414

Add: Calandstraat 81, 3125BA,
Schiedam,the Netherlands

Email: everpads.bv@everpads.com

www.everpads.com