

MOULD CLEANERS | MOULD PREPARATION PRIMERS
MOULD SEALERS | MOULD RELEASE AGENTS



High Performance Release Systems for
the Wind Energy Composites Industry

Chemlease® Composites Release Systems

Where Innovation Meets Application

CLEANERS | PRIMERS | SEALERS | RELEASE AGENTS



Specialized Products from Chem-Trend

For Wind Energy Applications

CLEANERS | PRIMERS | SEALERS | RELEASE AGENTS



BUILDING A REPUTATION

For fifty years, Chem-Trend's reputation has been built on a foundation of providing value and service. Chem-Trend has a singular focus of developing and manufacturing innovative release products for use in the composite, polyurethane, die cast, thermoplastic, tire, general rubber and rotational moulding industries. We become directly involved in our customers' processes and apply our development expertise to provide our customers with tailored solutions to their unique problems that improve overall productivity and quality. At the core of our business are industry-standard mould release agents, die lubricants, tire paints and purging compounds engineered to maximize productivity while delivering high-quality finished parts.

Working with Chem-Trend's Composites team goes far beyond just obtaining product. We are committed to bringing you premier Chemlease® mould release agents and ancillary products such as mould cleaners, mould sealers/primers and other mould maintenance products. That is because each product that we develop brings with it Chem-Trend's fifty years of working hand-in-hand with customers at the shop floor level through our on-site service to help solve their manufacturing production problems. Included with each of our products is our obsession with quality and concern for HSE issues as witnessed by our multiple facility certifications such as: ISO-9001, ISO-14001 and OHSAS 18001. Our manufacturing facilities, sales and service offices cover the world, with a global distribution network offering our products and services to meet the needs of the composites industry.

Chem-Trend's composites technical centre, located in Howell, Michigan, with additional product development laboratories in Europe and technical service laboratories in South America and Asia, is an excellent example of our commitment to providing our customers with greater value. Chem-Trend's test facilities house pilot equipment that allows us to simulate a production environment for product development and quality testing before products reach the customer. This is an investment we've made so that our customers know when they choose Chem-Trend's Chemlease® brand they have products that have truly been around the world and are ready to go to work for them.

Chem-Trend ensures customer satisfaction by focusing on productivity and performance of our products in support of our customers' manufacturing processes. It's an approach that has provided our customers with the best service and support available in the industry today.

Putting it all together—that's Performance.

That's the value of Chem-Trend.

CHEMLEASE® RELEASE AGENTS for Wind Energy Composites

Demolding any part can be defined as a point of critical performance in any composites manufacturing process, but this is especially true for large, high performance composites structures such as wind blades and nacelles. Our Chemlease® brand of mould release agents have provided a competitive advantage to many wind energy composite manufacturers with water- and solvent-based release agent solutions that can maximize productivity whilst meeting the most demanding of specifications and operating conditions. Chemlease® release agents for wind energy composites manufacturers provide:

- Excellent multiple part release with polyester, epoxy or PU systems for resin infusion, pre-preg and wet lay manufacturing
- Reduced build-up in the mould cavity
- Optimal surface finish quality and gloss level, in conjunction with the appropriate Chemlease® mould preparation products
- Water- or solvent-based products
- Compatibility with secondary operations such as gluing and painting
- Lower scrap rates
- Less downtime
- Higher quality parts
- Low VOC emissions
- Cleaner, safer environments

When customers purchase Chem-Trend's Chemlease® release agents, they also gain access to a worldwide support network of industry professionals committed to providing the right product for their application. We make our global expertise available locally to our customers through our sales, technical and support professionals. Our production facilities use leading development, testing and production equipment and processes to assure consistent batch-to-batch products. Do you have a unique application that requires something more? Chem-Trend can custom formulate solutions to meet your unique needs.

ANCILLARY COMPOSITES PRODUCTS

Innovation doesn't end with our release agent technology. A comprehensive line of support products works in unison with our release agents to help maximize productivity, quality and profitability. Chem-Trend's support products have decades of proven performance in some of the world's largest wind energy composites moulding operations. Chem-Trend's system approach to product development has allowed us to co-develop a series of complimentary mould cleaners, sealers, mould preparation products and internal mould release additives that maximize overall release performance. With our industry leading release agents, a dedicated team of professionals is available to work with customers to determine just the right combination of preparation products for your application. Chem-Trend's mould cleaners, primers and sealers can make the difference between making it and making it profitably.



SUPPORT PRODUCTS FOR COMPOSITES MOULDING

Chem-Trend offers a complete line of Chemlease® brand mould preparation products designed to meet the needs of virtually any applicable composites manufacturing process.

MOULD CLEANERS

Chem-Trend offers a complete line of water-based and solvent-based mould cleaners designed to address the needs of virtually any type of composites manufacturing process. Chem-Trend's Chemlease® mould cleaners are formulated to powerfully but safely attack resinous mould build-up. These highly engineered cleaners are designed to remove waxes, silicones, contaminants, and resin residues from both pre-production mould preparation and in-line moulding applications.

MOULD SEALERS/ PREPARATION PRODUCTS

Chem-Trend's Chemlease® sealers and preparation primers provide a durable barrier to seal any microporosity present in the mould and help prevent mechanical and chemical attack on the mould surface during moulding operations. These products are an excellent solution for preparing new tooling and providing an effective base for enhancing release of difficult to release mould surfaces. Chemlease® mould sealers and preparation primer products have been formulated to work most efficiently in a system approach in combination with Chemlease® release agents in pre-production or in-line production touch-up applications. Chem-Trend can provide both gloss and matte surface finish mould preparation primers, depending upon part surface finish requirements.

For more information on specific Chem-Trend products, visit www.chemtrend.com or contact your nearest Chem-Trend sales office or distributor.



A world of support

Chem-Trend brings global expertise to each customer:

- Leading-edge wind energy composites product development laboratory
- Manufacturing facilities on four continents
- Sales and service offices in 17 countries
- Distribution network across more than 50 countries
- Around-the-clock product support available

Chem-Trend Regional Headquarters

Chem-Trend North America

Global Headquarters
Howell, MI USA
Tel: 517.546.4520
Fax: 517.546.8910
psales@chemtrend.com

Chem-Trend Brazil

Southern Hemisphere Headquarters
Valinhos, Sao Paulo, Brazil
Tel: +55.19.3881.8220
Fax: +55.19.3881.8222
sales@chemtrend.com.br

Chem-Trend India

India Headquarters
Bangalore, India
Tel: +91.80.3941.0410
Fax: +91.80.3941.0510

Chem-Trend Germany

European Headquarters
Maisach, Germany
Tel: +49.8142.417.0
Fax: +49.8142.1588.4
service@chemtrend.de

Chem-Trend Singapore

Asia-Pacific Headquarters
Singapore
Tel: +65.6736.0113
Fax: +65.6736.0655
sales@chemtrend.com.sg

Chem-Trend Japan

Japan Headquarters
Osaka, Japan
Tel: +81.66.225.1285
Fax: +81.66.225.1286

For more information about Chem-Trend and our locations in other countries, please visit us at www.chemtrend.com/locations.asp

Once constructed, a focal point for the reliable and efficient operation of wind turbines is lubrication. Klüber Lubrication, is a leader in the field of developing specialty lubricants for the most demanding applications, offering a comprehensive portfolio of high-quality specialty lubricants and services tailored to the specific needs of the wind energy sector. Their focus is always on reliable component function, the extension of maintenance intervals, energy-efficient and cost saving solutions. Klüber Lubrication, www.klueber.com, and Chem-Trend are part of the Freudenberg Chemical Specialities Group.