

Sealing Under Pressure: Reliable Solutions for High-Temperature, Pulp & Paper Equipment

Engineered sealing solutions from TEADIT® deliver reliability and durability across digesters, steam lines, and chemical systems.

BY ZAC HOOVER AND CHRIS MORRIS

In the Pulp & Paper industry, sealing failures are not just inconvenient, they are costly. Unplanned downtime, safety risks, and maintenance overruns can severely impact productivity. For plant managers, engineers, and operators, the question is not whether a seal will hold, it is how long, under what conditions, and whether it will do so reliably. That is where TEADIT® comes in.

Among the most demanding applications in a pulp mill is the digester. Operating continuously for up to 18 months between shutdowns and outages, digesters expose seals to extreme heat and pressure, abrasive wood fiber, and highly corrosive black liquor. It is not a job for generic packing. TEADIT®'s answer: Style 2002.

TEADIT® Style 2002 is a carbon fiber packing, impregnated with graphite and enhanced with a corrosion inhibitor. This composition gives it the high mechanical strength and thermal stability needed to maintain performance over long runtimes. It is not just chemical resistance or thermal endurance that matters here, it is the ability to handle all of it at once. Style 2002 delivers.



Style 2235.

Matching Products to Process Demands

Every area of a pulp and paper plant has its own sealing requirements. That is why TEADIT®'s product lineup is engineered for specific challenges across the process:

- **Style 2235:** Designed for superheated steam valves, this packing is made from high-purity graphite with oxidation inhibitors and reinforced with a nickel-chromium alloy wire jacket (Inconel®), ensuring it can handle the stresses of high-pressure, high-temperature steam lines.
- **Style 2774:** Used after bleaching, where graphite contamination must be avoided. This packing is made from phenolic fibers, impregnated with PTFE and mineral lubricants, providing high abrasion resistance and chemical compatibility without risking black spots in finished paper.
- **Style 2005 and 2202:** Versatile options for chemical service and steam applications throughout the plant.



Style 2774.



913M.

TEADIT® also offers gasket solutions tailored to common pulp and paper line media:

- 913M spiral wound gaskets for process piping and steam
- Tealon TF1580 for caustic and black liquor service
- NA1122 for high-temperature steam applications

Together, these solutions demonstrate TEADIT®'s deep understanding of the sealing needs for pulp & paper applications, from the harsh conditions inside a digester to the precision required post-bleaching. Each product is purpose-built to maintain seal integrity under specific operating conditions, helping reduce downtime, extend equipment life, and ensure consistent performance across the mill.

When standard solutions are not enough, TEADIT®'s sealing SMEs are ready to engineer custom recommendations that meet the exact demands of the application.

Beyond Products: Expertise and Performance

What sets TEADIT® apart is not only its product performance but the engineering behind it. In pulp and paper operations, multiple failure modes often converge, such as chemical attack, mechanical stress, and thermal cycling. TEADIT®'s strength lies in its ability to engineer sealing solutions that account for all these variables at once.



Tealon TF1580.

With a robust quality system, field-proven materials, and a team of technical specialists who have seen (and solved) nearly every problem in the field, TEADIT® offers the technical know-how to keep operations running.

If you are operating in one of the industry's toughest environments, TEADIT®'s approach to sealing may be the most reliable component in your system.

Learn more or request technical support at teadit.com.

ABOUT THE EXPERTS

Chris Morris is a Sales Engineer for Teadit, supporting customers and commercial interests in the Ohio Valley and Northeast Regions. Chris is a degreed engineer with over 10 years of experience in the gasketing business who specializes in field support and engineered application solutions. He resides in Parkersburg, WV with his wife and children.



Zac Hoover is a graduate of Missouri State University and currently holds the position of Regional Sales Manager at Teadit North America. With nearly five years of industry experience, he provides customer service and technical support for customers in the Midwest region of the US.