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ThistleBond

Pulp & Paper Repairs With Thistlebond Engineering Polymers

www.thistlebond.info

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ü Who hasn't at one time or other exclaimed "how wonderful the world would be without paper!"

ü Usually said when one has to fill in tax return forms and write reports!!

ü Fact is that if we did not have paper then the world would be a very different place - there would be no news papers to inform, no contacts to work and rely on, no drawings to guide man manufacturing and a million other things where we rely on paper for.

ü Although the word paper is derived from the word "papyrus" a water reed used as a writing material over 5000 years ago by the Egyptians, it is the Chinese who deserve credit for "inventing" paper less than 2000 years ago.

ü Today's papermaking relies nearly exclusively of the use of cellulose vegetable fibres. They are held together in their natural state by mainly. Lignin which by chemical treatment and washing of the pulp is dissolved and removed.

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- Pulp Manufacture: Basically there are two methods:

- *mechanical* and *chemical* pulping.

- Mechanical pulping is used chiefly for coniferous woods, aiming at high yields rather than pure pulp (used for things like newsprint that is not designed to last)

- Logs are trimmed, de-barked, ground.

- Chemical pulping removes more of the unwanted materials resulting in lower yield but higher quality pulp.

- Generally divided into two categories: acid liquor (sulphite) and alkaline (sulphate) liquor.

- It is important to realise that the paper and pulp manufacturing process is a totally different procedure than moist other industrial manufacture and as such has a wide variety of ABRASIVE applications where :

- *Thistlebond can offer SOLUTIONS and many COST SAVING benefits.*

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Pulp & Paper Repairs With Thistlebond Engineering Polymers

- Abrasion:
- Erosion – Corrosion
- Chemical Attack
- Atmospheric Corrosion

Minimise the effects of erosion / corrosion with Thistlebond Engineering Grade Polymer Composite materials……..
By using High Value Thistlebond Polymers…

- *Reliability*
- *Performance*
- *Cost Efficient*

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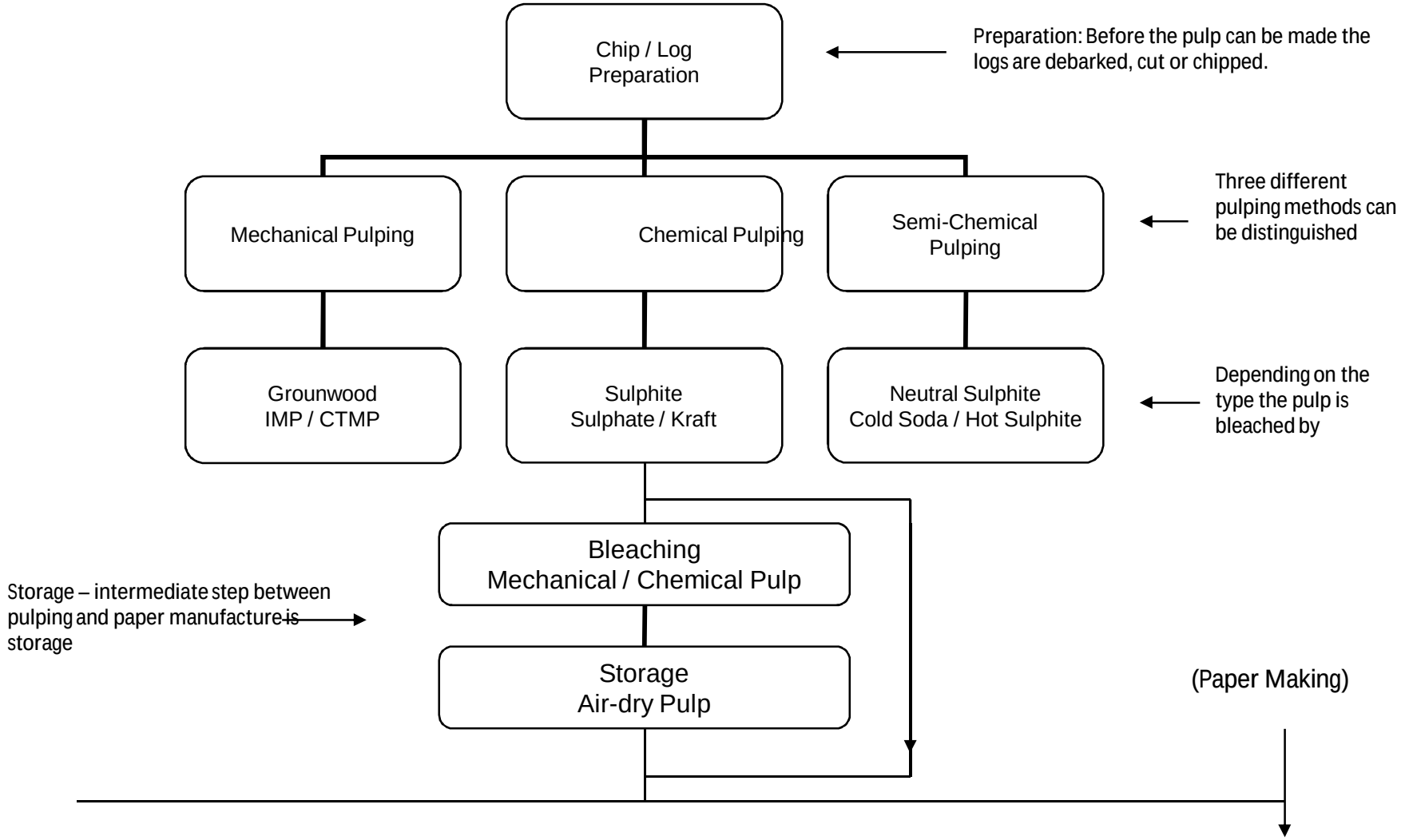

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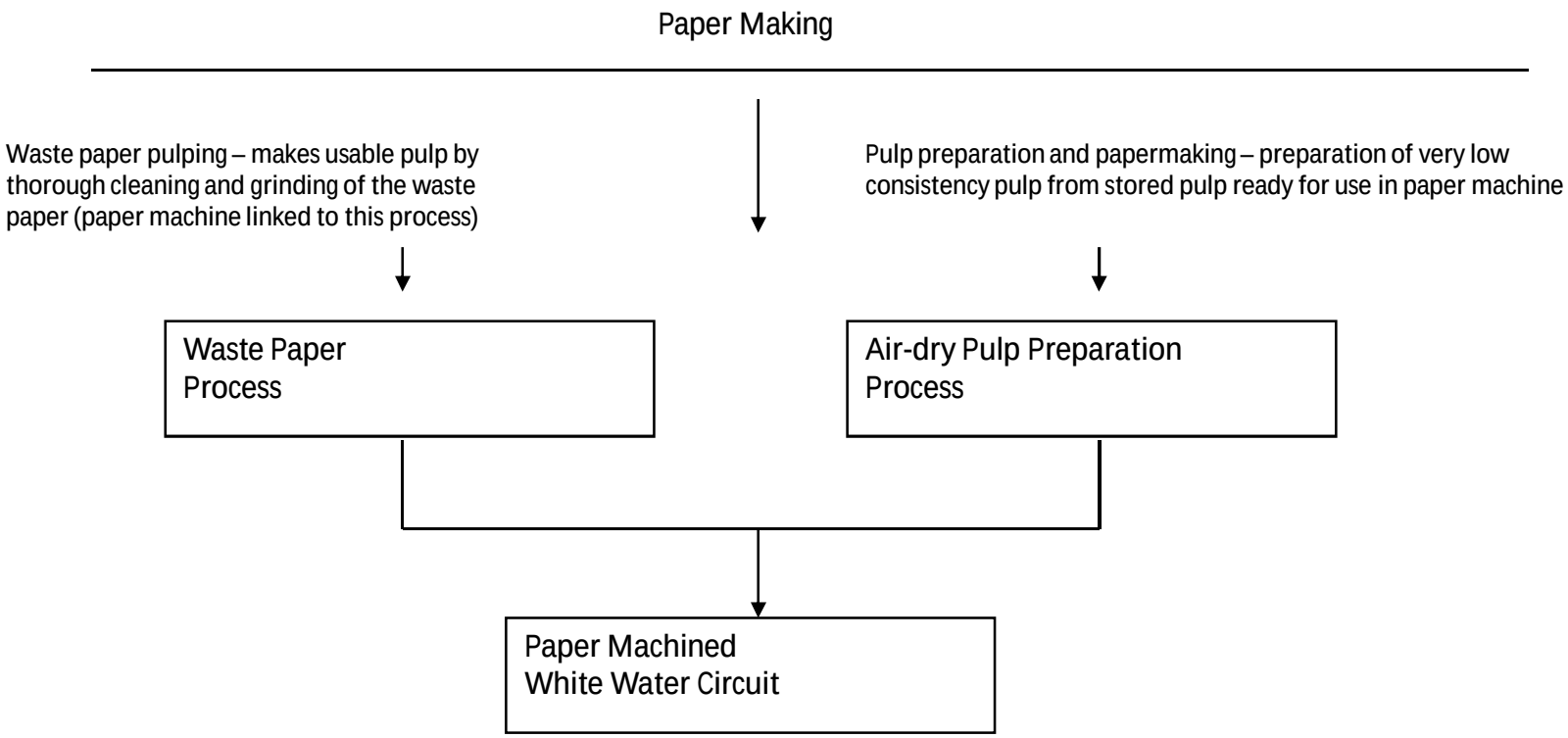

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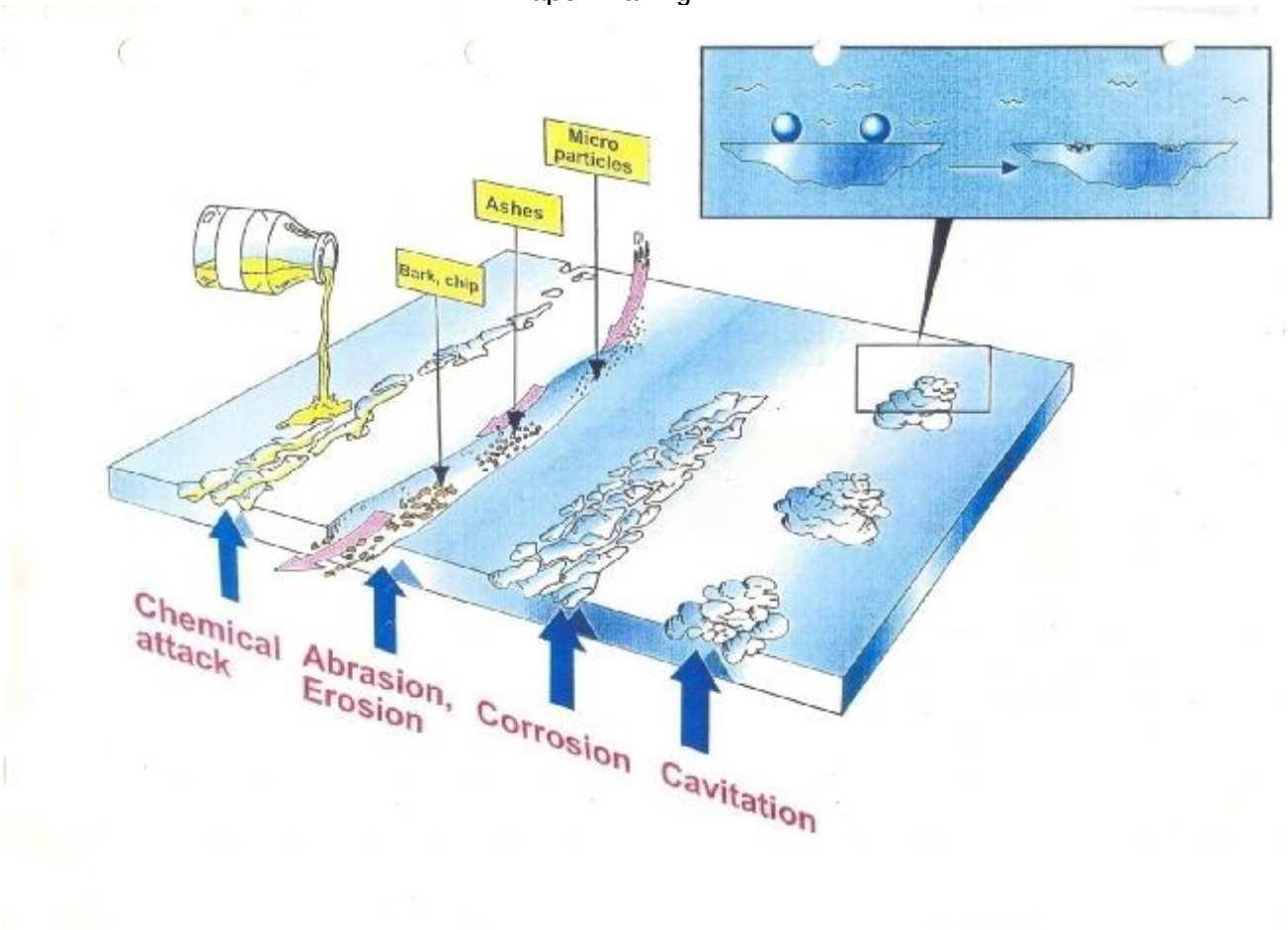
Paper Making



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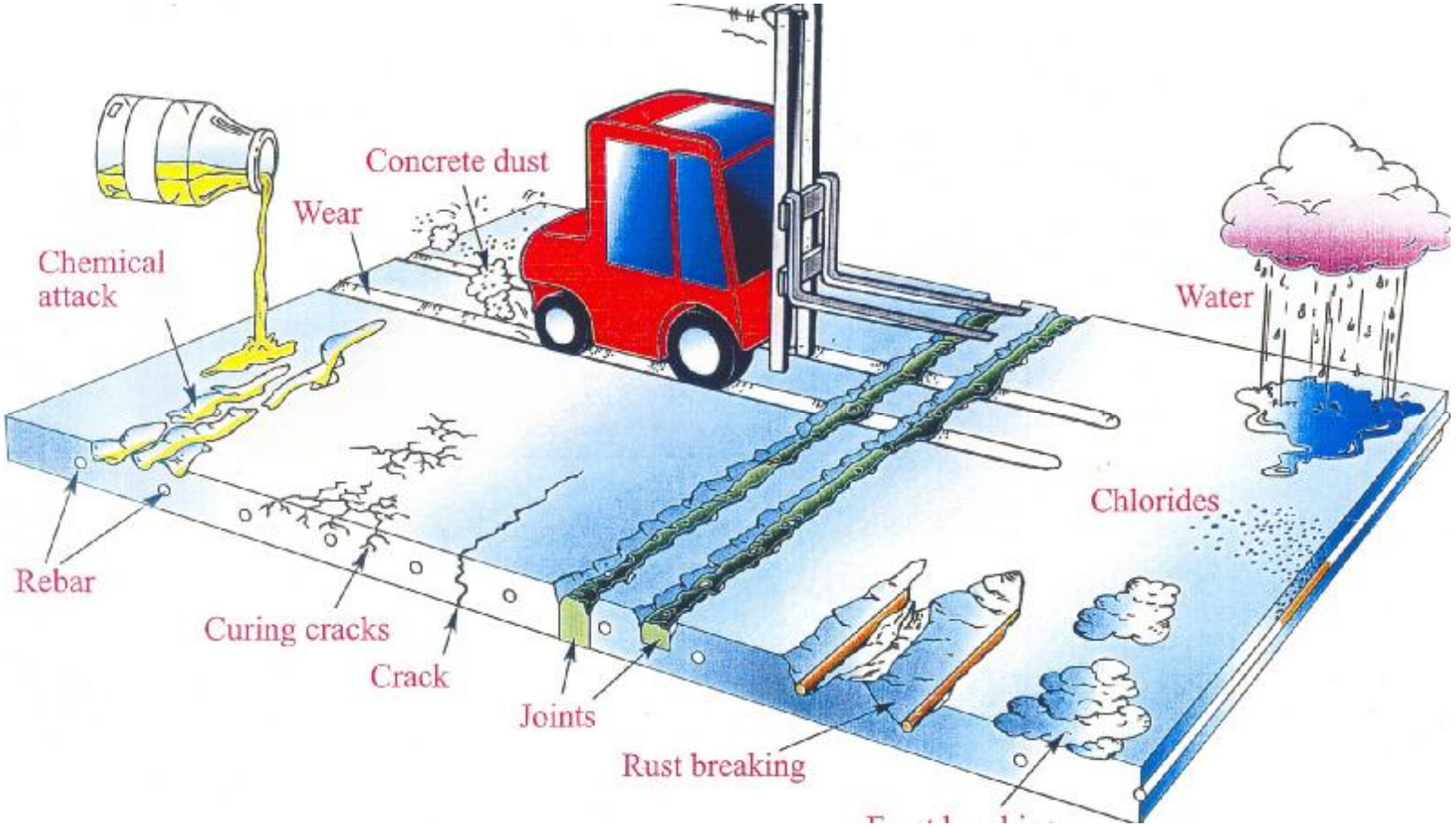
Paper Making



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Thistlebond Polymers Applications in Pulp and Paper Industries.

Pumps Rebuilt:

- Gould Fan Pumps – pump paper stock
- Warren Fan Pumps
- Alum Pumps
- Vacuum Pumps
- Pumps in Sewage Treatment Plant
- Chemical Pumps
- Trash Pumps

Most Pumps located in Pulp & Paper Industry have problems because of erosion, corrosion, cavitation and chemical attack.

Used Pumps are repaired with ***Thistlebond TR200 Ceramic Carbide*** Wearing Compound and then coated with ***TR205 Fluid Grade High Abrasion Resistant Ceramic.***

New Pumps can be blast cleaned and coated with ***TR205 Abrasion Resistant CERAMIC*** to PREVENT damaged caused by above fluid flow situations.

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Thistlebond Polymers Applications in Pulp and Paper Industries.

Pump Shafts:

Rebuild with ***TR105 Super Metal Rebuilding Compound*** in the worn packing gland areas.

Repair damaged Keyways with same.

Pump Impellers and Rotors:

Coat with ***Thistlebond TR205 Ceramic*** after being re-built with ***Thistlebond TR200 Ceramic Carbide.***

Do same with Rotors in Vacuum Pumps as well as End Plates

Pump Bases:

Concrete bases are eroded due to chemical attack. These can be built back with ***Thistlebond TPC610 Concrete Patch Repair*** and then coated with ***Thistlebond TPC675Hycote 175.***

Metal bases can be repaired with ***Thistlebond TR200 Ceramic*** and then coated with ***Thistlebond TPC662 or Thistlebond TR205 Fluid Ceramic***.

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Thistlebond Polymers Applications in Pulp and Paper Industries.

Pump Casings:

Outside of pump cases can be coated with ***Thistlebond TL500 or TPC621***

Chemical Storage Areas and Chemical Blend Areas.

Eroded tank basis can be repaired with ***Thistlebond TPC610 Concrete Patch Repair or Thistlebond TR200 Paste CERAMIC*** depending on substrate, and coated with ***Thistlebond TL500*** for many years of protection.
Floors in these areas are constantly being eroded away by chemical spills. They can be repaired and given long-term protection by the use of ***Thistlebond TPC610 Concrete Repair.***
There are many ladders on these tanks and walkways that present a safety hazard when they become covered with certain chemicals. ***Thistlebond TPC605 Grip Tech*** is an excellent application for these areas.
Many times, tanks become eroded by chemical attack and they can be repaired using ***Thistlebond TR200 Paste Ceramic***.

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Thistlebond Polymers Applications in Pulp and Paper Industries.

Wet End Of Paper Machine:

Floors around Fourdirinieer area get eroded and are a constant problem. Repair with ***Thistlebond TPC610*** – really need want 6mm thick in these areas, as there is constant traffic with heavy equipment.
Wire guides are a constant problem – they keep the wire that pulp goes onto tracking straight. They are not a big product use area but they solve a constant problem for customers.
Walk areas, ladders, etc. in these areas are always wet and are excellent areas for ***Thistlebond TPC605 Safety Coatings***.
Head Box or Couch Box can be lined with ***Thistlebond TPC 662 Chemical Protection*** or in more severe cases ***TPC675 – The ULTIMATE*** for protection.
Suction boxes can be easily repairs using both ***TR200 Paste Ceramic*** and ***TR205 Fluid Grade Ceramic***.
Journal Ends on rolls can be rebuilt using ***TR105 Super Metal Repair***.

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Thistlebond Polymers Applications in Pulp and Paper Industries.

Rewind Area of Paper Machine and Calendar Stacks:

Floors are a problem and need ***TPC621 Floor Seal*** and / or ***TPC605*** for safety.

Safety is a concern in this area because there are slitter knives being used. ***Thistlebond TPC605 Grip Tech*** works extremely well here.

Floors at end of rewind area come into the same category and Thistlebond ***TPC610 Floor Seal*** can be used.

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Thistlebond Polymers Applications in Pulp and Paper Industries.

Flume Pumps in wood yard area.

Rubber of Floorboards, Thistlebond Elastomeric Repair polymers ***(TR305 and TR300)*** repairs.

Elevator Digesters using ***TPC610 and TPC605.***

Machine area ramps, Digesters using ***TPC610 and Thistlebond TPC605***.

Heat Exchangers using ***TR200 and TR205 FLUID CERAMIC***

Cracks and Expansion joints using ***TR320 Elastomer***

Shafts and Bearings using ***TR105 Engineering Metal Repair Systems***
460 mm pipes on large pumps using ***TR200 and TR205 FLUID CERAMIC***

Outside Diameter Pipes ALL sizes ***TRK 19605 (thistlewraps)*** and ***TRK19000 Standard Resin*** combined with exclusive grade *Glass reinforcement Tapes.*

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For further information on Paper & Pulp or other focused application Industries please contact:

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ü Water industry

ü Power generation Industry

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