



# trio<sup>TM</sup>ban

## Antifoams/Defoamers

### Cause & Effect - Foaming in Pulp & Paper

Entrapped air which is present in the form of foam in papermaking stock or white water can cause various kinds of problems, including pin-holes, circular marks on the paper, reduced dewatering rates, and loss of solid material due to overflow of foam from tanks and chests which ultimately leads to loss of resources.

There are many mechanical and chemical factors responsible for air entrapment and generation of foam in a “Pulp mill & Paper mill”. This foam can cause various troubles like -

- Formation problem in a paper mill
- Reduced effectiveness of pump
- Growth of bacteria
- Formation of deposit
- Drainage problems
- Downtime to cleaning system ultimately increasing cost due to chemical drainage.

**Defoamer** are employed to overcome these problems as they tackle both surface foam and entrained or entrapped air and they play essential part in the pulp and paper making.

### Benefits of using Defoamer or Antifoaming Agent

- Improves drainage in the paper mill.
- Improves drainage in the Kraft pulp stock, sulfite stock, bleaching plant screen room area in the pulp mill.
- Reduces paper breaking and hence improves paper machine runnability in turn increases paper mill production.
- Lesser steam consumption in the dryers and resultant energy savings as well as cost savings.
- Avoids formation of holes during paper formation by removing fine bubbles in fibers.

### Trio offers various types of defoamers to suit your application type

PULP & PAPER DEFOAMERS						
Product Name	Product Type		Pulping	Paper Machine	Effluent	Coating
	Silicone	Non Silicone				
TRIOBAN F 695		●		●		
TRIOBAN F 083		●		●		
TRIOBAN 2020 EM		●	●	●		
TRIOBAN 2SDXL		●		●	●	
TRIOBAN F 35	●		●			
TRIOBAN PP 30	●				●	
TRIOBAN P 1403	●		●			
TRIOBAN E 27 D		●	●		●	
TRIOBAN ULTRA 15	●		●		●	
TRIOBAN PC NSDL		●				●

### TRIOBAN F 695

- Non ionic defoamer and paper stock deaerator which is effective on paper machine.
- Helps to clean running of paper machine at very low dosage.
- Does not affect sizing or paper strength.
- Low toxicity.
- An excellent drainage & knockdown properties.

### TRIOBAN F 083

- Silicone free defoamer.
- Very effective on paper machine at stock temperature between 30°C to 50°C.
- Helps to disperse soil floatation & does not contribute to pitch accumulation.
- Recommended to use in headbox for immediate foam control.

### TRIOBAN 2020 EM

- A versatile economical antifoam formulation for general chemical processing application.
- Especially used for Absorbent Paper Industries.
- Recommended to use in wire pit for immediate foam control.
- Used on paper machine as well as during pulping process.

### TRIOBAN 2SDXL

- Economical grade non silicone.
- A great knock down ability and also has a long term efficiency over wide range of system.
- An effective stock deaerator.
- Works in effluent treatment plant & has to be added in clarifier & aeration tank where silicone is not tolerated.
- Traditionally used defoamer in paper machine.

### TRIOBAN F 35

- Premium silicone based used in paper Industry.
- Suitable for brown stock washing.
- Shows excellent Knock down properties over wide range of pH.
- Long lasting efficiency.

### TRIOBAN PP 30

- Silicone based used for paper effluent treatment plant.
- Suitable ETP waste water application.
- Can be automatically dosed when product needed only through dosing pump.
- Very effective even at low concentration and has very good dispersibility.

### TRIOBAN P 1403

- Excellent silicone defoamer with deaeration effect.
- Excellent performance in the control of foams by significantly reducing the soda ash loss by atleast 15-20%.
- Highly compatible in extreme pH i.e (4 -12).
- Highly compatible at high temperature (upto 110°C).
- Effective even at low concentrations and facilitates smoother pump operation.

### TRIOBAN E 27 D

- Versatile defoamer formulation for pulping & ETP process and show excellent performance, where silicone is not required.
- Non silicone defoamer in paste form.

### TRIOBAN ULTRA 15

- Excellent defoamer cum antifoaming agent.
- Good shear resistance.
- Effective foam control & process aid for chemical pulping
- Persistent foam control action.

### TRIOBAN PC NSDL

- Provides uniform coating.
- Dispersible in water to give emulsion of moderate stability.
- Improves runability.
- Improves printability.