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Waste Water

The waste waters are waters polluted with household, industrial, agricultural and other usage purposes or their properties are totally or partially changed by mine polluted and mineral processing polluted or are rainwaters, unusable waters.



Waste Water Treatment Systems

- Physical Purification
- · Biological Treatment
- · Chemical Treatment



Fiziksel Yöntemler

- · Chain Grates
- Sand Arresters
- · Sediment Tanks









Chemical Treatment

- Coagulate Agents
- pH Stabilization
- Usage decolourant agents
- Ozon treatments



Biological Treatments

Aerobic Biological Treatment

Activated Sludge
Biofilm
Trickling Filter
Stabilization system



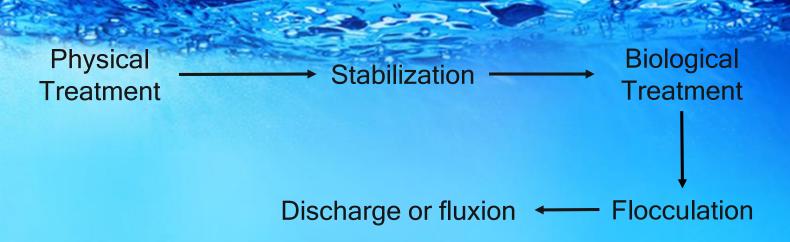
· Anaerobic Biological Treatment

Continuous Stirred Tank Reactor Anaerobic Filter Fluid Bed System

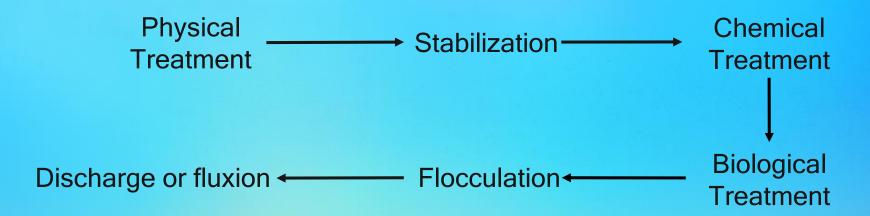




Method Without Chemical Treatment



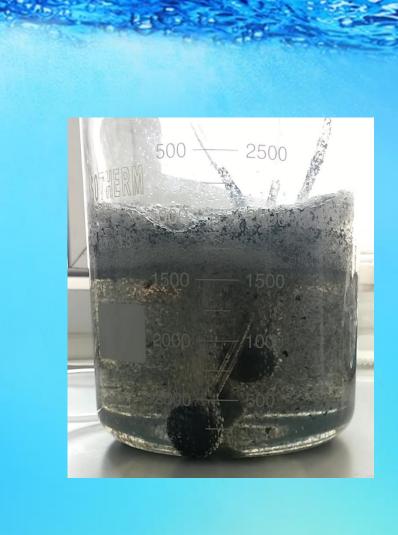
Method With Chemical Treatment





Why do we use chemical treatment?

- To carry out new legal boundaries
- To increase performance and capacity of the waste water treatment system
- To minimize the biological treatment risks
- To catch more stable discharge scales
- To reduce time of waste water treatment and become cost efficient



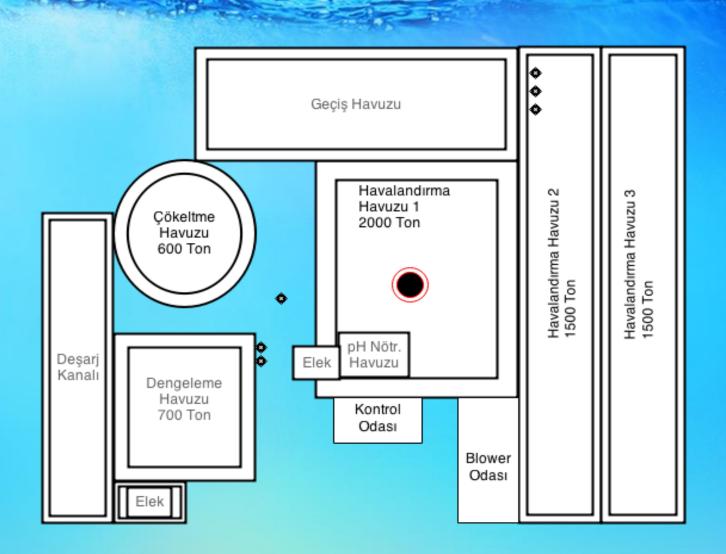
- It is cationic polyamine base.
- It is water miscible chemical.
- It does not harm biological activation.
- It is formaldehyde free.
- It has much more decoloration effect and coagulation activity than other competitors.
- The silt(sludge) has soft form is composed of minimum level and is easily removable.
- After for a long time it doesn't cause any smell.
- It improves color parameters around as % 60 70, also improves KOİ parameters around as % 30
- It improves biological treatment performance as ten times.



	DNG water 2400 KS	COMPETITOR
KOİ Value	% 28.3 is improved	% 18.4 is improved
Color (PtCo)	% 57.2 is improved	% 34.7 is improved



Trial of BIL-KUR TEKSTIL



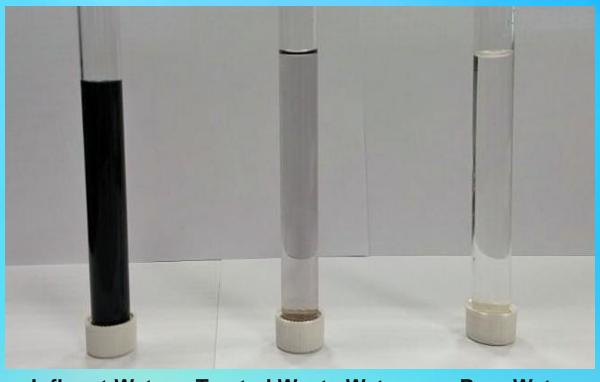
Trial of BİL-KUR TEKSTIL

METHOD 1: First of all, chemical treatment was applied then biological treatment was followed. It shows that 4000 m3 waste water was cleaned up with 200-250 kg chemicals by this method.

METHOD 2: Chemical and biological treatment were applied at the same time in the same tank. It shows that 4000 m3 waste water was cleaned up with 450-480 kg chemicals by this method.

Operational Test Results

	Color(PtCo)	KOİ (mg/L)
Influent Water Value	~2000	~1100
Discharge Water Value	249	202
Specification Value	280	250



Influent Water Treated Waste Water

Pure Water



Benefits

- It removes organic impurities mostly in advance that is why it lightens biological treatment process and improves biological treatment performance as ten times.
- It reduces the aeration period that is why energy cost is also filed down.
- It provides much more stable treated water cause of make similar properties of waters which are coming to biological treatment in different times.
- It substantially minimizes the risks in biological treatment by removing the toxics coming from influent water
- It paves the way for the bacteria's viability and population by stabilizing the waste water which bacterias come upon in the biological treatment process.
 It minimizes the risks and provides optimum color
- and KOI values.
- It increases the capacity of waste water treatment process by reducing the aeration period.



DNG water 2400KS Advantages against of Competitors

- · It is formaldehyde free.
- It does not harm biological activity
- It can be used in every phase of waste water treatment.
- Its density is lower than the competitors for that reason if it use the same volume it has the advantage of usage weight.