

FIXING AGENT (Polyamine)

for Paper Manufacturing

NTFIX EF-50

APPLICATION

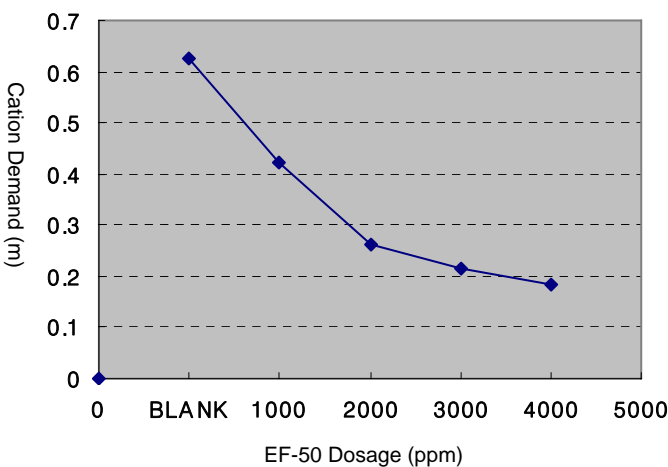
NTFIX EF-50 effectively retains fines and various chemicals, such as sizing agent, starch, dye and fillers etc., into pulp during paper making process. It was designed to maintain the intrinsic properties of not only acidic pH base process, but also neutral pH. Afterwards, it helps the paper minimize the change of physical properties according to other materials introduced during whole paper making process.

- Fixing
- First pass retention Improve
- Drainage Improve
- Sizing promotion

CHARACTERISTICS

NTFIX EF-50 derives the cost reduction of process by allowing effective fixing of various chemicals and fine fibers. It helps the paper hold the typical paper properties especially in the neutral paper manufacturing process as well as acidic process due to no change of charge density by pH variation. Thanks to dehydration and strength promotion, machine speed can be even faster and strength agents' performance can be also improved by reducing anionic materials.

- Blocking the anionic trash
- Increasing the chemical efficiency
- Prevent the process contaminations



EN-TECH POLYMER CO., LTD.

Rm209, Jeil Plaza, Imae Dong 131-1, Bun Dang Ku, Seong nam City, Kyunggi Do, 463-806, South Korea.
TEL : 82-31-7067452 FAX : 82-31-7067453 www.ntechpolymer.com

PRECAUTIONS ON HANDLING & STORAGE

NTFIX EF-50 should keep store below 40°C, especially take precautions for freezing during wintertime. If it is frozen, please thaw slowly before use. Storage tank should make of stainless steel, PP and FRP materials. On treating this chemical, taking care not to contact skin directly is necessary. If HF-59 exposes to the skin, rinse with plenty of water immediately.

HF-59 has no classification and restriction by combustibles ship transport and storage rules. Please refer to the Material Safety Data Sheet for other safety conditions.

PHYSICAL PROPERTIES

Properties	Unit	Value
Appearance		Light Amber Aqueous Liquid
Solid Content	%	48.0 ~ 50.0
Viscosity*	cps	350 ~ 750
Ionic property		Cationic
pH		5.5 ~6.5
Specific Gravity		1.15 ± 0.01
Solubility in water		Completely soluble
Storage stability		Over 6 months at normal temperature

※ Viscosity : Brookfield Viscosity (25°C)

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APPLICATION DATA

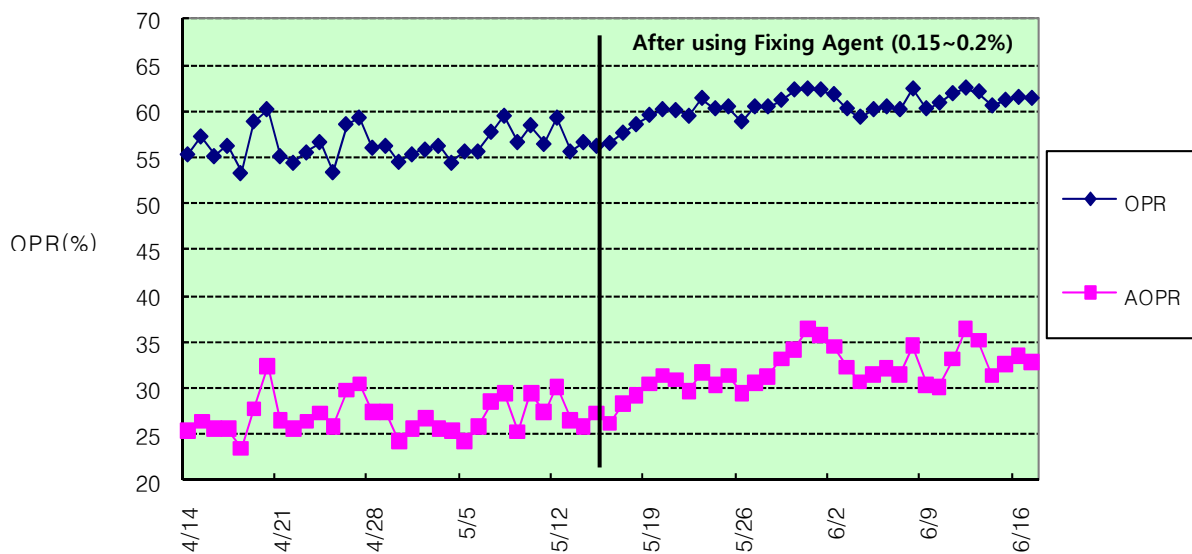
First Pass Retention Improvement.

As high cationic property of fixing agent, fiber and fines OPR can be improved and Cation demand of white water can be reduced in the paper making process.

Application example (1)

"P" PAPER PM6 IN KOREA			
Paper Machine	Grade	Newsprint 45~49g/m2	
	Capacity	750 MT/day	
	Speed	1,500m/min	
	Wire Type	Twin wire	
Pulp	DIP	100%	
Chemicals	Fixing agent	0.15~0.2%	Polyamine
	Retention	0.04%	Polyacrylamide
	Bentonite	0.15%	

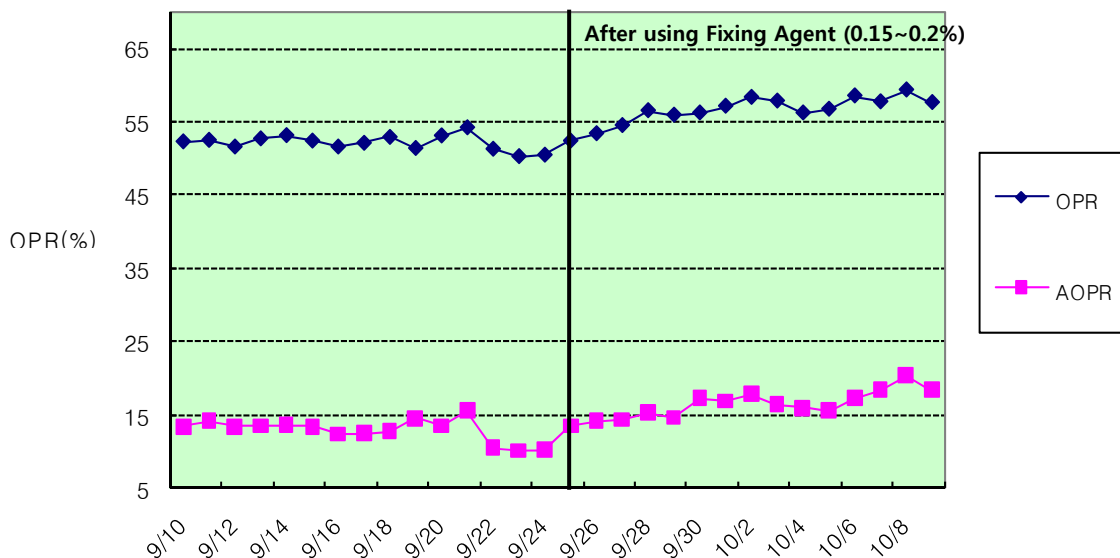
	Before using Fixing Agent	After using Fixing Agent	Remark
White water SS (%)	0.45	0.40	
Cation demand	580	340	meq/g
One Pass Retention (%)	56.5	60.4	
Ash One Pass Retention (%)	27.0	31.6	



Application example (2)

"P" PAPER PM6 IN KOREA			
Paper Machine	Grade	Newsprint 45~49g/m2	
	Capacity	750 MT/day	
	Speed	1,500m/min	
	Wire Type	Twin wire	
Pulp	DIP	100%	
Chemicals	Fixing agent	0.15~0.2%	Polyamine
	Retention	0.04%	Polyacrylamide
	Bentonite	0.15%	

	Before using Fixing Agent	After using Fixing Agent	Remark
White water SS (%)	0.48	0.42	
Cation demand	638	350	meq/g
One Pass Retention (%)	52.4	57.3	
B Ash One Pass Retention (%)	13.1	17	



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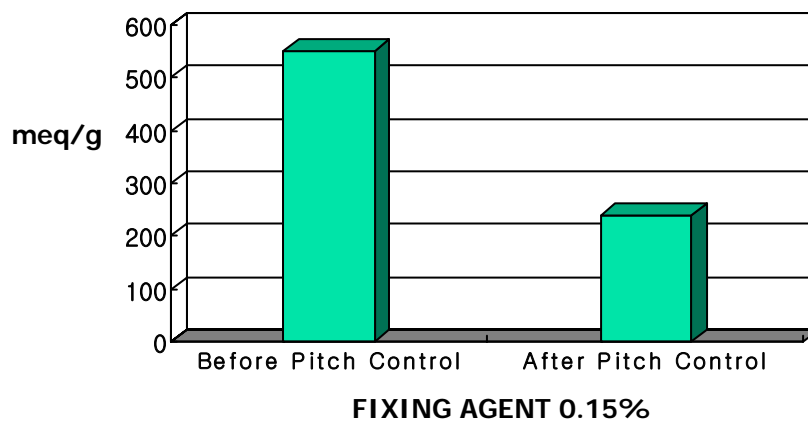
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PITCH CONTROL AGENT

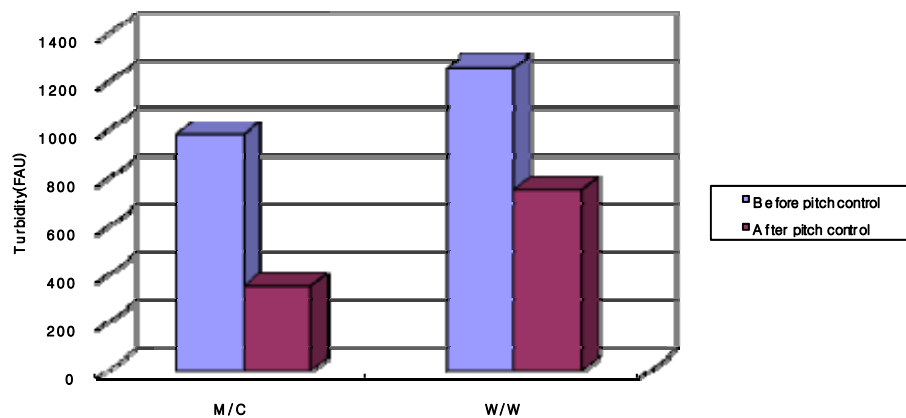
Application example (1)

"P" PAPER PM7 IN KOREA			
Paper Machine	Grade	Newsprint 45~49g/m ²	
	Capacity	800 MT/day	
	Speed	1,600m/min	
	Wire Type	Twin wire	
Pulp	DIP	100%	
Chemicals	Fixing agent	0.15~0.2%	Polyamine
	Retention	0.03%	Polyacrylamide
	Bentonite	0.15%	

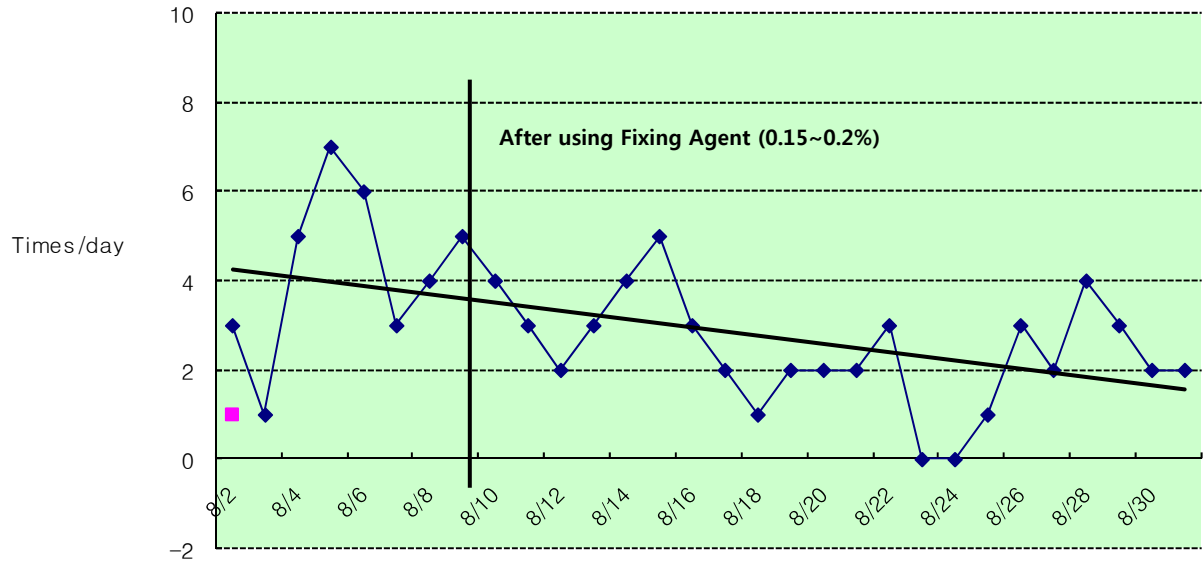
Reduced Cation Demand of white water



Decreased Turbidity of white water and machine chest.



Sheet break trend.



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