

FLOCCULANT JAR TEST REPORT

Client	Trial Conducted by
<i>Jindal Steel and Power Ltd., (JSPL) Barbil</i>	<i>Abhitech Energycon Ltd., (AEL) Mumbai</i>

Abhitech Energycon Ltd., (AEL) Mumbai was invited by M/s. Jindal Steel & Power Ltd., (JSPL) Barbil has conducted jar test of flocculent on dated 01-10-2020.

The detailed report as follows;

PRODUCT USED: HYDROFLOC 1010

PRODUCT TYPE: ANIONIC POLYELECTROLYTE

SOLUTION STRENGTH: 0.05 % (0.05 gm flocculent sample dissolved in 100 ml distilled water)


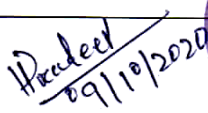
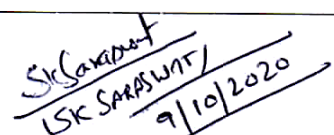
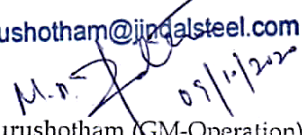
Slurry Sample	1000 ml	1000 ml	1000 ml	1000 ml
Dosage (Hydrofloc 1010)	14 ml/7 ppm	16 ml/8 ppm		
Dosage (Existing Flocculant)			16 ml/8 ppm	20 ml/10 ppm
Settling time	1min 17 sec	1 min 3 sec	3 min 22 sec	1 min 35 sec
Appearance	Clear	Clear	Hanging pin flocs	Clear

Conclusion

From the above Jar test result we can conclude that 7 ppm dosage of Hydrofloc 1010 gives better result with respect towards removal of suspended particles , settling rate and residual turbidity of supernatant water against 10 ppm dosage of existing flocculants used in Dewatering of Iron ore tailing.

Cost Benefit Analysis:

	Hydroclean 1010	Existing Flocculant
Optimum dosage	7 ppm	10 ppm
Slurry volume	23,000 m ³ /day	23,000 m ³ /day
Hydroclean Quantity per day	$(23,000 \times 7)/1000 \text{ kg} = 161 \text{ kg}$	$(23,000 \times 10)/1000 \text{ kg} = 233 \text{ kg}$
Quantity required per day	161 kgs	233 kgs
Quantity required per month	$161 \times 30 = 4830 \text{ kgs}$	$233 \times 30 = 6990 \text{ kgs}$
Savings per month	$6990 - 4830 = 2160 \text{ kgs}$	

For Jindal Steel and Power Ltd., (JSPL) Barbil	For Abhitech Energycon Ltd., (AEL) Mumbai
 9/10/2020 Mr. S. Pyari Lal (Manager - Operation)	 29/10/2020 Mr. Pradeep Kumar Sahoo (Asst. Manager - Sales)
 SK SARASWAT 9/10/2020 Mr. Sanjeev Saraswat (Manager - Operation)	
md.purushotham@jindalsteel.com  M.D. 09/11/2020 Mr. M. D Purushotham (GM-Operation)	