

**SPECIFICATION OF POLYACRYLAMIDE FLOCCULENT FOR
NEUTRAL THICKENER**

Synthetic Polyacrylamide Flocculent is required to be added in the feed slurry to neutral high rate thickener to form bigger flocs of the solids present in the feed so as to enhance its settling rate in the thickener to produce a thick underflow solid slurry and a perfectly clear overflow liquor.

Others details are:

1. PH of feed slurry	-	7.0 to 8.0	
2. % solid in feed slurry	-	(w/w) 20 to 30	
3. Size of solid in feed	-	-325mesh	40%
		-200 +325mesh	30%
		+48mesh	0.5%
4. Specific gravity of solid	-	2.8	
5. Specific gravity of liquor	-	1.0	
6. Temperature of slurry	-	Ambient	
7. Underflow slurry consistency	-	55-65%(w/w)	

N.B:

From our past experience Magnafloc - 1011 of BASF India Limited / Flowmin - 4953 of SNF India Pvt. Ltd. has given good result. This information may be used for selection of proper product. However party is free to conduct testing in the plant with their own resources for selection of proper product. UCIL will only provide slurry for the test.

Selection Criteria:

- A) 25 gms. of sample along with detail leaflet of product containing its viscosity, toxicity, shear rate, molecular weight, chain length etc. is required to evaluate the offer without which offer may be rejected.
- B) Only solid powder flocculent is acceptable. Emulsion or gel etc. is not acceptable.
- C) Sample not performing well in lab. testing will be rejected.
- D) Offer without sample & leaflet shall be rejected.
- E) Settling test shall be carried out with existing plant slurry for determination of rate of settling with the offered flocculent sample. Sample of flocculent giving of poor rate of settling during testing & evaluation as compared to the existing shall be rejected. The settling rate of 500ml neutral slurry with 20% - 30%(V/V) solids (& other details as mentioned above) with a flocculent dose of (0.05% strength) 2ml shall be such that it gives a clear liquor above the graduation point of 250ml in the measuring cylinder at the end of five minutes after the slurry was mixed with flocculent & it was left in the measuring cylinder settling. However if the settling rate is faster than the above mentioned range, the same sample shall also be qualified for consideration.
- F) Test report of the settling test shall be given only upon written request. The report shall carry only the result of the sample supplied by the concerned party.


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