

Chemicals for Deinking Plant

Hindustan Newsprint Limited intends to procure the following chemicals for the Deinking Plant.

1. Deinking Chemical for pulper/floatation cell
2. Flocculant for sludge dewatering

The interested suppliers shall provide references for the supply of their chemicals along with its Material Safety Data Sheet (MSDS). The price of the chemical and its expected dosage are also to be given. A chemical sample may be sent to HNL Laboratory for evaluation. If the chemical performance is found to be successful in laboratory trials, the supplier shall offer a free trial in the Plant for 3-4 days. If the chemical is found to be satisfactory during the free plant trial, a performance based longer trial will be conducted, the payment for which will be made as per the performance criteria stipulated in the following pages.

If the performance of the chemical is established during the longer trial, the chemical will be qualified for procurement in future tenders.

Performance requirements of Deinking Chemical for ONP+OMG

1. The brightness gain will be the deciding factor if purifier inlet brightness is ≥ 45 and the floatation outlet brightness will be the deciding factor if purifier inlet brightness is < 45

	Particulars	Criteria
Case 1	Purifier inlet brightness ≥ 45	Brightness gain 5.0 (minimum)*
Case 2	Purifier inlet brightness < 45	Floatation outlet brightness 50 (minimum)

*The brightness gain is calculated from purifier inlet to floatation outlet and the brightness values are in elrepho.

2. Average Pulp Yield during the trial period shall be 79.0% minimum.
3. Pulp Yield shall be calculated as follows:

$$\text{Yield} = \frac{\text{Pulp produced (BDMT)}}{\text{Waste paper used (BDMT)}} \times 100$$

Waste paper moisture shall be taken as 10%.

Waste paper weight is as per load cell measurement.

Pulp production is as per Flow meter.

4. Waste Paper Furnish shall be 85-90 % ONP+ 10-15 % OMG. The ONP shall comprise Indigenous ONP and/or imported ONP in any proportion. OMG shall be indigenous and/or imported. The percentage and quality of waste paper may vary to some extent. In case of major variations in furnish, the corresponding results of the trial shall be ignored for the purpose of evaluation.
5. Continuous operation of the plant is not guaranteed.
6. Decision of HNL will be final and binding on performance evaluation.
7. If the brightness gain is below 5.0 and up to 4.0 in Case 1, or if the flotation cell outlet brightness is below 50 and up to 49 in Case 2, pro-rata deduction will be effected. No payment shall be made if brightness gain is below 4.0 under case 1, and no payment shall be made if Flotation outlet brightness is below 49 under case 2.

If the pulp yield is below 79% during free trial, the chemical will be rejected. If the pulp yield is below 79% and up to 77% during the performance based paid trial, payment shall be made as per the pro-rata conditions, but the chemical will not be considered for future procurement. If the pulp yield during the performance based paid trial falls below 77 %, no payment shall be made. This clause is applicable to both Cases 1&2.

8. HNL lab report will be final regarding brightness values. The average brightness value during the trial period will be taken for evaluation, leaving out the highest and lowest readings.
9. In case of major adverse observations during the trial, HNL reserves the right to discontinue the trial. Unused material shall be taken back by the supplier within 2 months at his own cost. E.D. and C.S.T for the used material shall be reimbursed at actuals for the performance based paid trial. If the unused material is not taken back within 2 months, no claim will be entertained.
10. Payment shall be made as per actual cost of the chemical or Rs.325 x DIP production, whichever is less, during the trial period.

Pro-Rata deduction for shortfall in Deinking Chemical Performance for ONP+OMG

The percentage deduction applicable for any shortfall in the performance of deinking chemical is given below:

(a) BRIGHTNESS

Case1--Brightness Gain from Purifier inlet to flotation outlet

Below 5.0% and upto 4.8%	2%
Below 4.8% and upto 4.6%	4%
Below 4.6% and upto 4.4%	6%
Below 4.4% and upto 4.2%	8%
Below 4.2% and upto 4.0%	10%

Case2- Flotation Outlet Brightness

Below 50.0% and upto 49.8%	2%
Below 49.8% and upto 49.6%	4%
Below 49.6% and upto 49.4%	6%
Below 49.4% and upto 49.2%	8%
Below 49.2% and upto 49.0%	10%

(b) PULP YIELD (Applicable to both Cases 1&2)

Below 79.0% and upto 78.8%	2%
Below 78.8% and upto 78.6%	4%
Below 78.6% and upto 78.4%	6%
Below 78.4% and upto 78.2%	8%
Below 78.2% and upto 78.0%	10%
Below 78.0% and upto 77.8%	12%
Below 77.8% and upto 77.6%	14%
Below 77.6% and upto 77.4%	16%
Below 77.4% and upto 77.2%	18%
Below 77.2% and upto 77.0%	20%

No payment shall be made if pulp yield is < 77%.

Pro-rata deduction will be applicable on the actual cost of the deinking chemical used or Rs.325 x DIP production, whichever is less (for the used material). If pro-rata deduction is effected on account of both (a) and (b) above, the applicable deduction will be cumulative of the individual deduction.

The chemical dosage established during the performance based paid trial shall be the basis for evaluation of offers during subsequent procurements. L1 will be decided based on the chemical cost per MT of DIP for the established dosage and price quoted. This dosage should be guaranteed by the supplier with a tolerance of maximum 10% excess consumption. This tolerance is given to take care of the waste paper quality variations and process variables.

If the consumption of the selected L1 chemical exceeds this tolerance level, additional cost incurred over and above this tolerance level would be deducted from payment for the quantity of DIP produced at this increased dosage. In such cases, further procurements would be subject to review by HNL.

Decision of HNL will be final and binding on performance evaluation.

Performance criteria of flocculant in Deinking Plant

The sludge dewatering takes place in 2 stages-Rotary Screen Thickener (RST) followed by a screw press. The flocculant is added at RST inlet. The flocculant shall satisfy the following condition:

Final Sludge dryness from screw press outlet : 40 % (Minimum)

The waste paper furnish shall be about 85-90% ONP and 10-15 % OMG.

During the trial, in case of any major adverse observations, HNL reserves the right to discontinue the trial. Unused material shall be taken back by the supplier within 2 months at his own cost. E.D. and C.S.T for the used material shall be reimbursed at actuals for the performance based paid trial. If the unused material is not taken back within 2 months, no claim will be entertained.

HNL lab report will be final regarding sludge dryness. The average Lab results during the trial period shall be taken for evaluation, leaving out the highest and lowest readings.

Payment shall be made as per actual cost of the chemical or Rs.120 x DIP production, whichever is less, during the trial period.

Pro-rata deduction

Pro-rata deduction will be applicable if the sludge dryness falls below 40% and up to 35% during performance based paid trial. The chemical will not be considered for future procurement if the dryness is below 35% during the performance based trial.

Pro-rata deduction will be applicable at the rate of 2% for every 1% shortfall or part thereof in sludge dryness. Pro-rata deduction will be applicable on the actual cost of the chemical used or on Rs.120 x DIP production, whichever is less (for the used material).

No payment shall be made if the sludge dryness is below 35% during performance based paid trial.

The filtrate clarity of Krofta will also be evaluated during the trials, though it will not have any impact on payment. However, if the krofta Suspended Solids is > 200 ppm, the chemical will not be qualified. The chemical dosage established during the performance based paid trial shall be the basis for evaluation of offers during subsequent procurements. L1 will be decided based on the chemical cost per MT of DIP for the established dosage and price quoted. This dosage should be guaranteed by the supplier with a tolerance of maximum 10% excess consumption. This tolerance is given to take care of the waste paper quality variations and process variables. If the consumption of the selected L1 chemical exceeds this tolerance level, additional cost incurred over and above this tolerance level would be deducted from payment for the quantity of DIP produced at this increased dosage. In such cases, further procurements would be subject to review by HNL.

Decision of HNL will be final and binding on performance evaluation.