

DYNABLEND[®]

LIQUID POLYMER APPLICATION WORK SHEET

Sludge Dewatering / Thickening Application

Step 1. _____ GPM sludge X 8.345 lbs/gal = _____ lbs / min liquid sludge

Step 2. _____ lbs / min sludge X _____ % dry solids (expressed as a decimal, i.e. 4% = 0.04) = _____ lbs / min dry solids

Step 3. _____ lbs / min dry solids X 60 min / hr = _____ lbs / hr dry solids

Step 4.a _____ lbs / hr dry solids ÷ 2000 lbs / ton = _____ tons / hour dry solids

-or- (if sludge volume is given in tons per day, skip steps 1 thru 4.a)

Polymer Dosage	
Thickening	Dewatering
6 – 10 lb/ton D.S.	12 – 25 lb/ton D.S.
Use 8 for sizing	Use 18 for sizing

Step 4.b _____ tons / day ÷ hrs of operation = _____ tons / hour dry solids

Step 5. _____ tons / hr dry solids X _____ lbs of polymer / dry ton of sludge = _____ lbs 100% active polymer / hr
(see Polymer Dosage Table)

Step 6. _____ lbs active polymer ÷ 8.345 lbs / gal = _____ gallons 100% active polymer / hr

Step 7. _____ gal 100% active polymer / hr ÷ _____ % active content = _____ gal / hr "neat" concentrated polymer
(expressed as a decimal, i.e. 45% = 0.45)

Step 8. _____ gal neat polymer / hr ÷ _____ % dilute solution desired = _____ gallons / hr dilution water
(expressed as a decimal, i.e. 0.25% = 0.0025)

Liquid Polymer Characteristics				
Type	% Active	% Dilution		
		Dewater.	Thickening	Clarification
Emulsion	25-35	0.25 – 0.5	0.2 – 0.3	0.1 – 0.25
Dispersion	40-75	0.2 – 0.4	0.1 – 0.2	0.1 – 0.2
Mannich	3-8	2.0 – 5.0	1.0 – 2.5	1.0 – 3.0

Clarifying / Filtration Application

NOTE: Typical Dose for Clarification / Filtration: 0.5 to 3.0 PPM (mg/l)

Step 1. _____ MGD plant flow X _____ PPM polymer dosage = _____ GPD 100% active polymer

Step 2. _____ GPD 100% active polymer ÷ hrs of operation = _____ gal / hr 100% active polymer

Step 3. _____ gal / hr 100% active polymer ÷ _____ % active content = _____ gal / hr "neat" concentrated polymer
(expressed as a decimal, i.e. 30% = 0.3)

Step 4. _____ gal / hr neat polymer ÷ _____ % dilute solution desired = _____ gallons / hr dilution water
(expressed as a decimal, i.e. 0.1% = 0.001)