

PolySeed[®]

Technical Report

BOD Checklist

TEST RANGES & REQUIREMENTS

BOD NUTRIENT WATER RANGES

- DO concentration of at least 7.5mg/L
- Temperature 20° ± 3°C
- pH 6.5 – 7.5
- Conductivity 125 – 165 mho/SI

BOD TEST RANGES

- Dilution Water Blanks <2.0mg/L
- Seed Control (SCF) 6.0 – 1.0mg/L
- GGA Standards 198 ± 30.5

CHECKLIST

Equipment:

DO Meter:

- Meter turned on at least 30 min prior to use
- Check to ensure membrane is good
- Calibrate according to manufacturer's instructions
- Clean probe with Deionized water before use

BOD Bottles:

- Cleaned with a lab grade soap
- Triple rinsed with deionized water
- Acid wash using 10% HCl solution

Tubing / Air Stones:

- Check for signs of mold in tubing
- Replace tubing at least once a month
- Replace air stones at least once a week
- Rinse tubing with Deionized water after every use
- Allow tubing to dry thoroughly before storing it

Dilution Water:

- Only use Deionized or Distilled water for your test
- Store source water no more than 24 hrs. in advance
- Keep source water at $20^{\circ} \pm 1^{\circ}\text{C}$
- Saturate source water before use
- Add nutrients immediately before use

Nutrients:

If you make your own nutrients:

- Discard nutrients if there is any sign of precipitation or biological growth in the stock bottles
- Store nutrients at room temperature Commercial nutrients:
- Use within the expiration date
- Store according to manufacturer's instructions

PolySeed:

- 500ml of BOD water per Capsule (may be adjusted to achieve required results)
- Aerate and stir for 1 hour
- Let the solution settle 15 minutes
- Decant solution into a clean beaker (pour all but 20mls into a clean beaker) to eliminate the bran
- Place solution back on stir plate and gently stir throughout the test
- Use at least 4 dilutions for your seed control (15ml, 20ml, 25ml, 30ml)
- Use 4 ml of PolySeed in your GGA's and Samples
- Use solution within 6 hours

Glucose-Glutamic Acid:

If you make your own GGA:

- Use only reagent-grade glucose and reagent-grade glutamic acid
- Dry at 103°C for 1 hour
- Add 150 mg glucose and 150 mg glutamic acid to distilled water and dilute to 1L
- Prepare fresh immediately before use

If you use commercial GGA:

- Check expiration date
- Check manufacturer's instructions for proper use