

Tech Note - 64

GDT Pillow TEST

Determining Tube Performance – Advanced Test

A Geotextile Dewatering Test (GDT), often referred to as a “pillow test”, is utilized to study the treatability of various sludges & sediments in order to determine the most efficient polymer/fabric combination to dewater a particular material.

A GDT involves pouring a sludge/sediment solution into a miniature geotextile tube or “pillow” measuring 26in x 32in and constructed of Hi-Flo dewatering fabric. All factors, including: 1) flow rate, 2) turbidity, 3) suspended solids; are evaluated.



This test is conducted by performing the following steps:

Step 1 - The slurry being tested is poured into the top of the standpipe while the standpipe and pillow are held slightly above the stand to ensure proper filling.

Step 2 - Immediately after the pillow is filled, the initial height of the bag is measured and recorded using a string line apparatus.

Step 3 – Next, the total amount of material that could be placed into the pillow is recorded

Step 4 – After 24 hours, the final height of the pillow is recorded.

Step 5 – Cut it open and conduct moisture testing (percent solids) utilizing a moisture balance.