

# Synthetic Sand

## Materials:

- One five-gallon bucket
- 2 metal scoops
- 1 colander with 1mm sieve
- 1 loop of rope with a 4-meter circumference
- Box or bag to hold sample



## Procedure:

1. Select site. Collect all materials and travel to beach.
2. Select collection sites on the high tide debris deposit line, also known as the “wrack-line”. Make a detailed map of the site with the exact location identified using GPS. This is just in case you come back later to replicate sampling.
3. Take the 4-meter rope grid and stretch the loop to make a perfect square 1m x 1m over the high tide wrack-line. Use pencils or sticks as stakes to hold down the corners.
4. Remove big pieces of natural debris, like seaweed, leaves and wood. Brush them off and throw them away. We don’t need them in this study.
5. Measure the 10-liter mark, or halfway point, on the large plastic bucket. Mark this point with a line around the bucket using a permanent marker.
6. Using the small shovel, scoop an inch of the surface of the grid into the 5-gallon bucket. Scrape the surface EVENLY! Do not dig a hole in the sand. We are measuring the quantity of plastic over a square meter of area. This is the total amount of sand that you will collect.
7. Use the colander to sieve the 10 liters of sand in the bucket.
8. Transfer the contents of the colander to the collection bag or box.



9. Fill out the label below and place it with the sample.

Synthetic Sediment Sample	
Location of collection site GPS	
Date	
Collected by:	



10. Sort the sample. Empty the bag of plastic debris into a pan and sort items into the seven categories listed on the data sheet titled "Data Sheet: Sorting for Size Class and Type of Plastic."

Data Sheet: Sorting by Type of Plastic		
Type of Plastic Debris	Quantity	Description
<b>Pellets</b> Pre-production plastic pellets, also known as "nurdles."		
<b>Fragment</b> Pieces of hard plastic debris that is unrecognizable.		
<b>Film</b> Flat and flexible plastic debris, such as pieces of bags or wrappers.		
<b>Foam</b> Expanded polystyrene used for insulation or packaging, sometimes called "Styrofoam"		
<b>Filament</b> Examples of filament include: fishing line, rope, synthetic cloth.		
<b>Cigarette butts</b>		
<b>Other</b> Includes: glass, rubber, metal or tar		