



COMPOSTING PLANT FOR THE PRODUCTION OF COMPOST IN CATANIA

The proposed plant layout has the main objective to develop the production of compost, obtained through a biological treatment of the organic fraction of the waste coming from the separate collection.

The plant, authorized with D.D.S. n. 120 of 12/02/2014 and subsequent D.D.G. n. 1212 dated 05/09/2016, has a maximum capacity of 70.000 t/year has been defined for waste R13 and R3 as indicated in Annex C of the fourth part of Legislative Decree No. 152/2006.

The different activities that take place inside can be defined as follows:

- Provision and mechanical pre-treatment of waste;
- Accelerated bio-oxidation in aerated static heaps;
- Ripening in upturned and aerated heaps.

The duration of the biological process must not be less than 90 days and in the first phase includes a accelerated bio-oxidation, followed by a second phase of maturation in heaps. The process technology for accelerated biooxidation is a static type with forced aeration of the material and takes place within n. 10 biocells in reinforced concrete ensures a rapid opening / closing of doors.

The maturation phase takes place inside a shed where 10 heaps are placed which are periodically turned by means of a revolving means.

Finally the material is screened for a final refining: the overage is used as a structuring and the under-size materials are placed in static heaps until the days necessary for stabilization are reached.

The quantity of product is about 21.000 t/year and is stored under a side-opened steel structure with a perimeter wall of 3,00 m height. The plant has been classified by a series of systems for the mitigation of emissions in the various environmental sectors that the activity in question could generate.

DESIGN DATA

Private client Sicula Compost
Type of service Executive planning
Project cost € 14.726.000,00
Location C.da Grotte S. Giorgio (CA)
Lot area 27.000 m²
Design period August 2017 - March 2018
Entered into operation May 2018

TECHNICAL DATA

Operations pursuant to all. B and C in Part IV of Legislative Decree 152/06 and subsequent amendments R3, R13

Type: composting process in biotunnel in reinforced concrete and final maturation through aerated (STAGE 1) and static dynamic piles (PHASE 2).
No. 1 building for composting tunnels: dimension 65 x 55 m
No. 1 building for the conferment and treatment of waste: dimension of 100 x 35 m
No. 10 composting tunnel (ACT PHASE): dimension 12.50 x 21.60 m each
No. 10 aerated and turned up piles: dimension 4 x 2.7 x 40 m each
Average process duration: 90 days

