

COMPOSTING PLANT IN MELILLI

The plant is authorized for the treatment and recovery of biodegradable organic waste for a maximum quantity of 45.000 t / year, in order to obtain high quality compost and natural fertilizers.

The plant is equipped with all the facilities and equipment necessary to ensure both the correct performance of the composting operations of the organic matrixes conferred and the adequate level of safety of the plant itself and of the surrounding areas (in terms of environmental emissions and human health).

The activities within the plant can be divided into:

- storage and mechanical pre-treatment of incoming waste;
- accelerated aerobic biostabilization in biocells;
- intermediate screening of the material;
- a first phase of maturation in aerated piles;
- final refining and second phase of maturation;
- storage of the finished product.

Mitigation works of environmental impacts related to the treatment process performed in the plant are designed:

- exhaust air treatment, sized for a flow rate of 280.000 m³/h; this system consists of 3 scrubbers equipped with two electric fans each. The air is then humidified and dedusted and in the passage through the biofilter also the volatile organic substances and odorigene are cut down within the limits of the law
- separate collection and management of rainwater, wastewater and leachates;
- adequate waterproofing system below all areas for handling, storage and treatment of waste composed as follows: layer of foundation ground regularization; WNW protection; 2.5 mm thick HDPE geomembrane; drainage geocomposite (consisting of WNW, geogrid and WNW); mixed layer of final regularization.

DESIGN DATA

Private client SICULACOMPOST s.r.l.

Type of service Executive design and construction management

Project cost € 24.770.000,00

Location Melilli, c.da Santa Catrini (SR)

Surface 48.537 m²

Design period September 2018

- in progress

TECHNICAL DATA

- **Accelerated bio-oxidation**
- **Biocells** no. 10, 550 m³ each
- **Average process period** 28 days
- **Total process duration** 90 DAY
- **Potential** 45.000 t/year
- **Working days** 350 d/year
- **Compost produced** 14.000 t/year

