

RECP Best Practice Catalogue

*Reuse of solid waste as filler
for construction industry*

Developed within the framework of MED TEST II



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



The SwitchMed Programme is
funded by the European Union

Best Practice - Reuse of solid waste as filler for construction industry

SECTOR:	Others
SUBSECTOR:	Fiberglass
PRODUCTS	Glass reinforced pipes and fittings
CATEGORY	Technology upgrade/Eco-innovation
APPLICABILITY	Process

COMPANY NAME	---
COMPANY SIZE	Large

Best Practice - Reuse of solid waste as filler for construction industry

Description of the problem (Base scenario):

The product finishing process entails trimming and grinding of the pipe ends. This process leads to high dust emissions from fine powder, that is collected by bag house filters, and then the company pays tipping fees to landfill it. The generated powder has good binding properties, where it is epoxy + fiberglass based.

Description of the solution

Linking the company to artificial marble producer, that producer added the grinding powder with other solid waste from different metallic industries to produce innovative artificial marble products. This experiment opened the room to investigate the utilization of the powder as filler material for other construction industries (Ceramics, tiles, ...).

Best Practice - Reuse of solid waste as filler for construction industry

Economic Benefits	The sales price of each ton of powder is not clearly defined as it is a new market, however the agreement between the pilot producer and the company was on approximately 200 Euro/ton, with a generated waste of 24 ton/year resulting in an income of 4,800 Euro/year
--------------------------	---

Environmental Benefits	24 tons/year of fine dust is utilized instead of being landfilled
-------------------------------	---

Best Practice - Reuse of solid waste as filler for construction industry

Capital investments & financial indicators	No cost measure Payback is immediate
Suppliers	None
Other aspects	Need to investigate other possible utilizations for the powder in construction industry
Implementation	The measure is in pilot phase. The purchaser of the waste needs to generate market demand for his products.

Best Practice - Reuse of solid waste as filler for construction industry

Replicability sectors The same concept can be replicated in

- Chemical industries having high losses of material

Aspects to investigate for replicability Physical and chemical properties of material
Possible purchasers for the waste

Useful resources
