

PRACTICAL CURRICULUM · RECYCLING, COMPOUNDING & LOCAL PRODUCTION · FULL-TIME

PLASTIC RECYCLING & COMPOUNDING WORKSHOP



From collected plastic waste to a tested, sellable building product, entirely on site.

Waste becomes raw material, made locally.

THE PROGRAMME

Less plastic in the environment comes not from appeals, but from a chain that turns waste into value on site.



Plastic Recycling & Compounding Workshop is a hands-on, full-time programme for local plastics recovery, from collection to the finished building product.

Across sixteen specialist modules in six phases, 18 to 24 trainees per group progress from material and sorting through size reduction, washing, extrusion and compounding to forming, quality testing and sales.

The focus is on practice throughout. Learning takes place at ten machine stations in small groups, with over 1 500 hours of hands-on time and more than 130 assessed exercises, from material analysis to sensory and technical testing.

Durable building products are made from 100 percent recyclate, among others in plastic-sand composite: paving stones, roof tiles, posts and benches. The programme closes with an integrative final project, from waste to a sellable batch.

The programme is offered as a curriculum, as a matching equipment specification, or as a turnkey package with machines, training and marketing support for the site.

50+

WEEKS FULL-TIME

1.500_h

HANDS-ON TIME

16

MODULES

130+

PRACTICAL EXERCISES

10

MACHINE STATIONS

PRACTICAL CURRICULUM

Sixteen modules.

From material and sorting through size reduction, washing, extrusion and compounding to forming, quality testing and local marketing, closing with the integrative final project.



MODULE

01 TO 16 · BY PHASE

01 Plastics & materials science
MATERIAL & SAFETY

07 Melting & extrusion
COMPOUNDING

13 Quality & end-product testing
QUALITY & OPERATIONS

02 Occupational safety & HSE
MATERIAL & SAFETY

08 Compounding & masterbatch
COMPOUNDING

14 Machines & maintenance
QUALITY & OPERATIONS

03 Collection & material flow
COLLECTION & PREPARATION

09 Pelletizing & recycle
COMPOUNDING

15 Business, costing & sales
OPERATIONS & MARKET

04 Sorting & NIR
COLLECTION & PREPARATION

10 Injection moulding
FORMING

16 Entrepreneurship & jobs
OPERATIONS & MARKET

05 Size reduction & milling
COLLECTION & PREPARATION

11 Pressing & sand composite
FORMING

06 Washing, drying & wastewater
COLLECTION & PREPARATION

12 Profile & sheet extrusion
FORMING

EQUIPMENT

Trained at ten machine stations.



01

Collection & sorting

Intake, scale, manual sorting and NIR identification of the plastic types.

02

Size reduction

Shredders, mills and agglomerator with dust and explosion protection.

03

Washing & drying

Washing, separation and drying technology including wastewater treatment.

04

Extrusion & compounding

Extruder with dosing of additives, fillers and masterbatch.

05

Pelletizing

Strand and hot-face pelletizing for recyclate production.

06

Injection moulding

Injection moulding machine with tooling for moulded parts.

07

Pressing & sand composite

Heated press and moulds for slabs, roof tiles and posts.

08

Profile & sheet line

Extrusion line for profiles, plastic lumber, fences and benches.

09

Quality & material testing

Test equipment for purity, strength, weathering and dimensional accuracy.

10

Occupational safety & infrastructure

PPE, exhaust air, fire protection and energy and power supply.

~180+ POSITIONS · 10 CATEGORIES

BRING THE PROGRAMME TO YOUR SITE

LET'S GET STARTED.

AVAILABLE AS • **Turnkey** (consulting + equipment + delivery + curriculum + installation + marketing)

