

Shotcrete for excavation faces, slopes and facings

Sprayed concrete forms facings for soil nail walls and protects slopes and rock faces.

CAN BE CONSIDERED WHERE

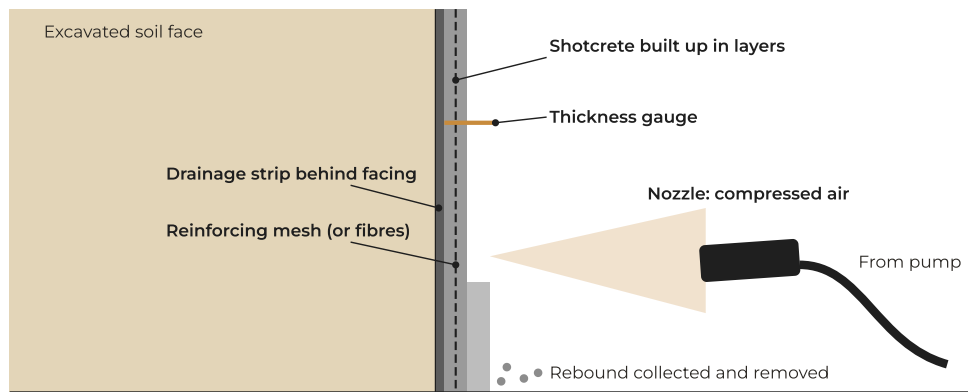
- Facing for soil nail walls.
- Temporary support of excavation faces.
- Slope and rock face protection.
- Lining and repair of concrete surfaces.

LIMITATIONS

- Quality depends on the skill of the nozzle operator.
- Rebound and overspray must be managed.
- Shotcrete must be cured carefully in hot climates.

HOW IT WORKS

Concrete is pumped to a nozzle and sprayed with compressed air, either premixed with water (wet-mix) or with water added at the nozzle (dry-mix).



Schematic, not to scale.

DESIGN INPUTS

- Thickness and strength class.
- Reinforcement: mesh or fibres.
- Drainage behind the facing.
- Exposure conditions.

EXECUTION CONTROLS

- Surface preparation.
- Thickness checked with gauges.
- Layer build-up and rebound management.
- Curing, especially in hot weather.
- Daily records.

VERIFICATION AND ACCEPTANCE

Design intent: What is required

Strength and thickness requirements agreed with the consultant.

Production control: What was done

Records of mix, thickness and curing.

Acceptance: What was proven

Cores for strength and thickness; test panels; visual inspection.

DELIVERABLES

Method statement · Mix design · Test panel results · Daily records · Core test reports