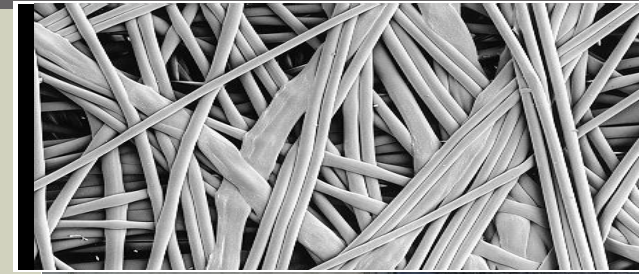




# DuPont™ Typar®

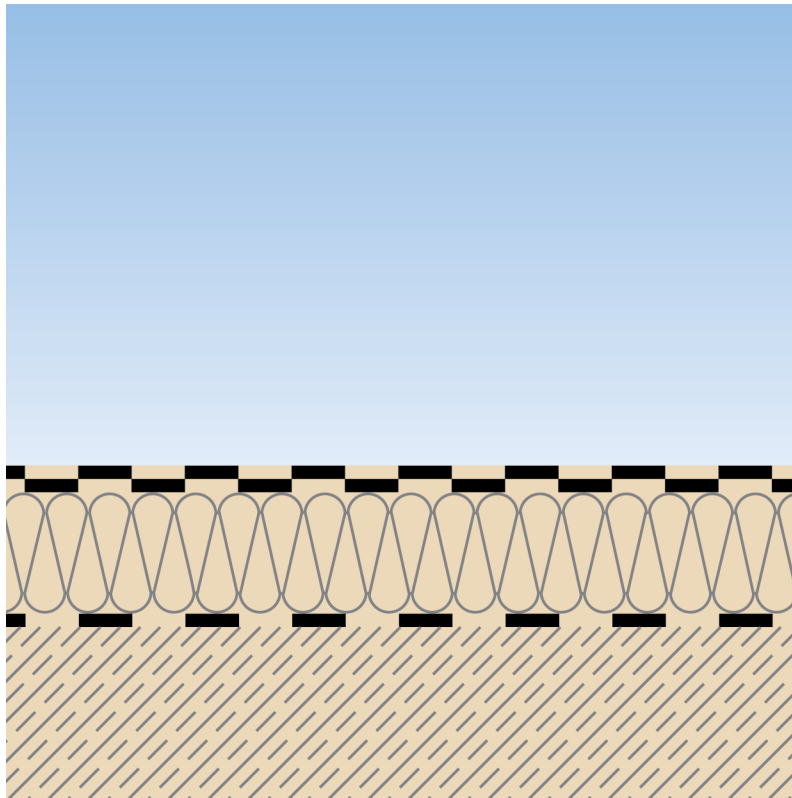
DuPont™ Typar® Geosynthetics

## Flat roof applications

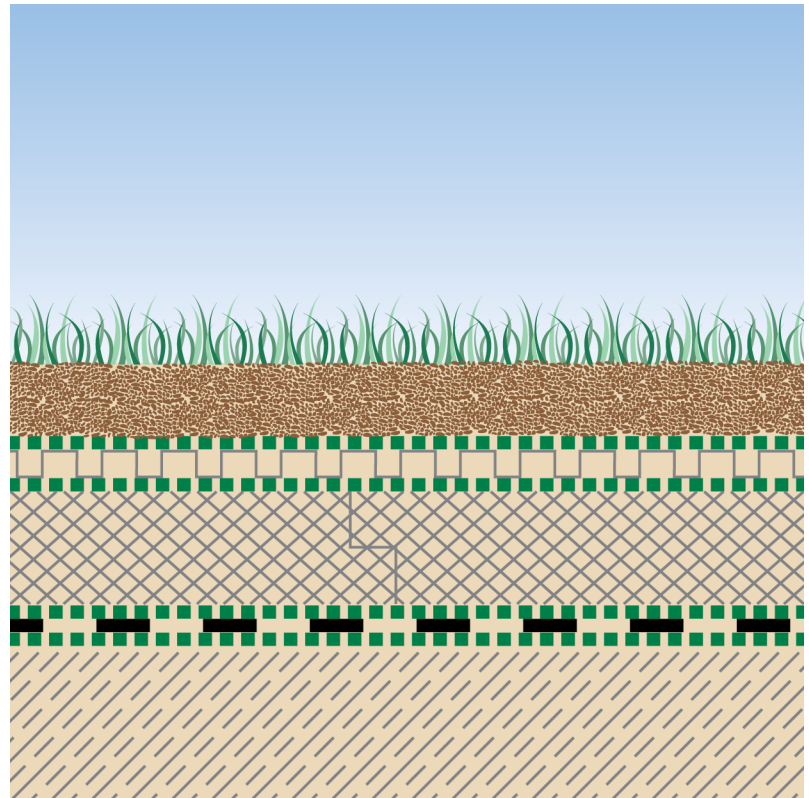


# Using of geotextiles in flat roofs

Flat roof without geotextile



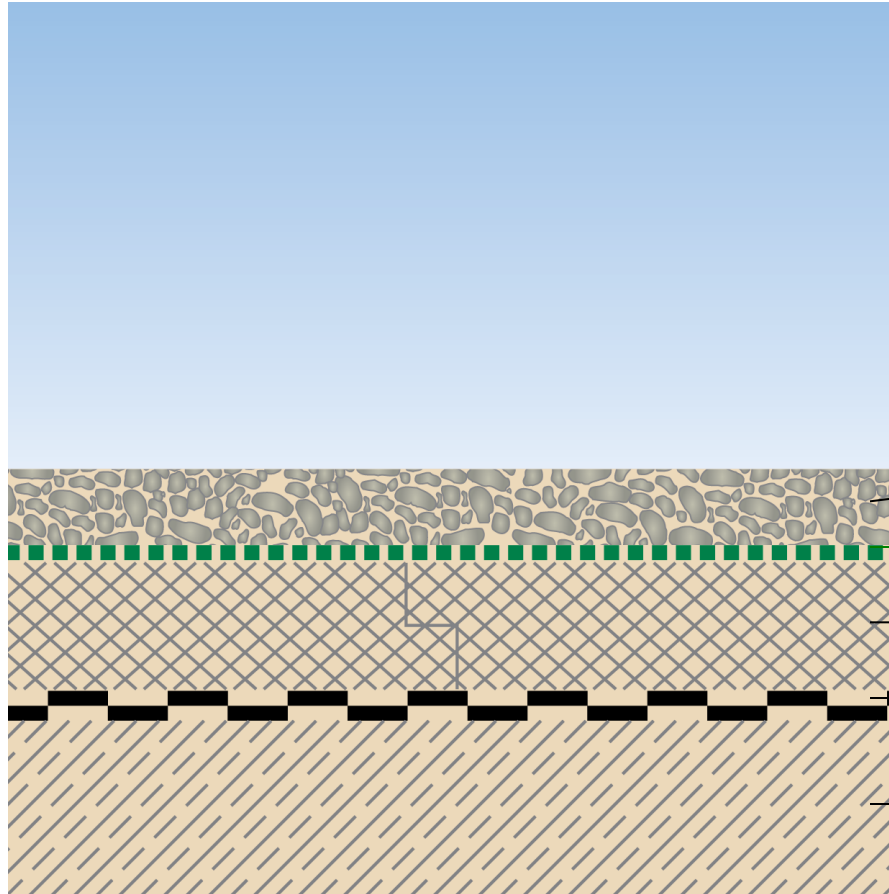
Flat roof with 4 layers of geotextile



# Using of geotextiles in flat roofs

- Geotextile as a separating layer between thermal insulation (XPS) and gravel ballast or paving slab supports in inverted roofs
- Geotextile as a filter layer in green roofs
- Geotextile as a protective layer above waterproof layer
- Geotextile as a protective layer under waterproof layer

# Typar® as a separating layer between thermal insulation and gravel ballast or paving slab supports in inverted roofs



gravel ballast

DuPont™ Typar® SF (separating layer)

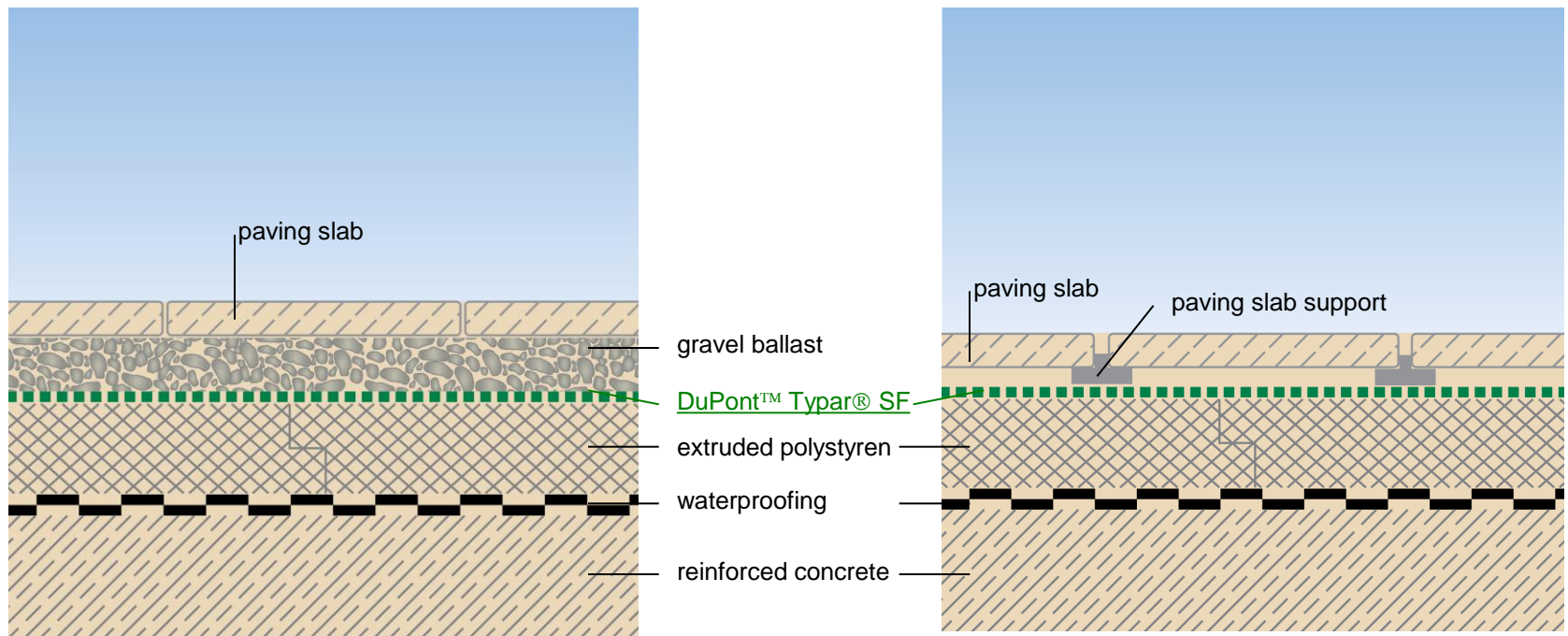
extruded polystyren

waterproof layer (bitumen felts)

reinforced concrete or  
other roof construcion

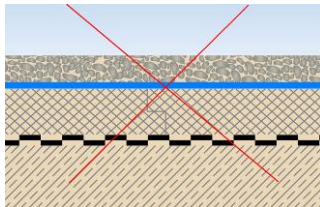
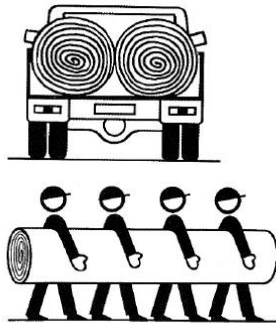


# Typar® as a separating layer between thermal insulation and gravel ballast or paving slab supports in inverted roofs



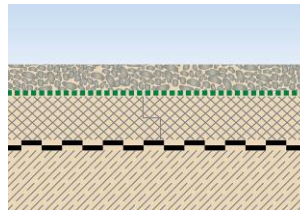
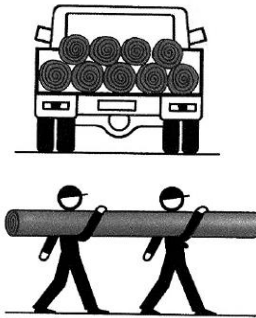
# Typar® as a separating layer between thermal insulation and gravel ballast or paving slab supports in inverted roofs

with other geotextile



?

with Typar®



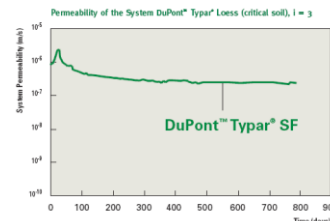
saving money for transportation

better manipulation, easier work

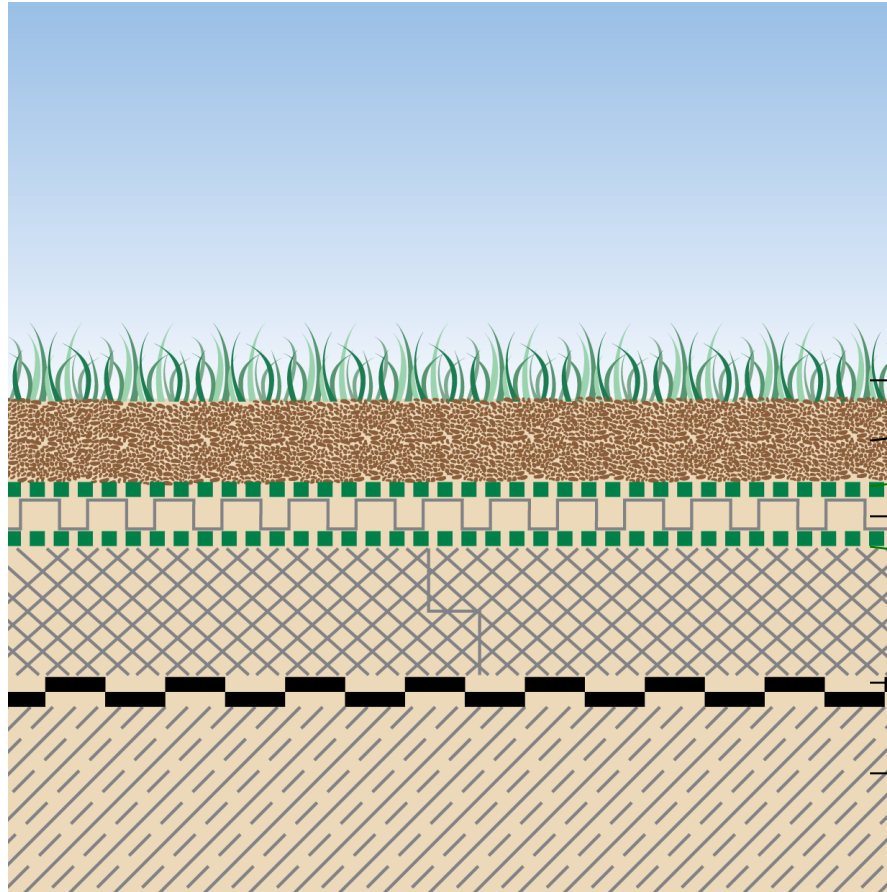
Typar® doesn't soak up water, it cannot freeze and create diffusion closed layer like some needlepunched geotextiles (very important in inverted roofs)

Typar® does not clog

Typar® retains its permeability under in-use loads.



# Typar® as a filter layer in green roofs



vegetation

soil

DuPont™ Typar® SF (filter layer)

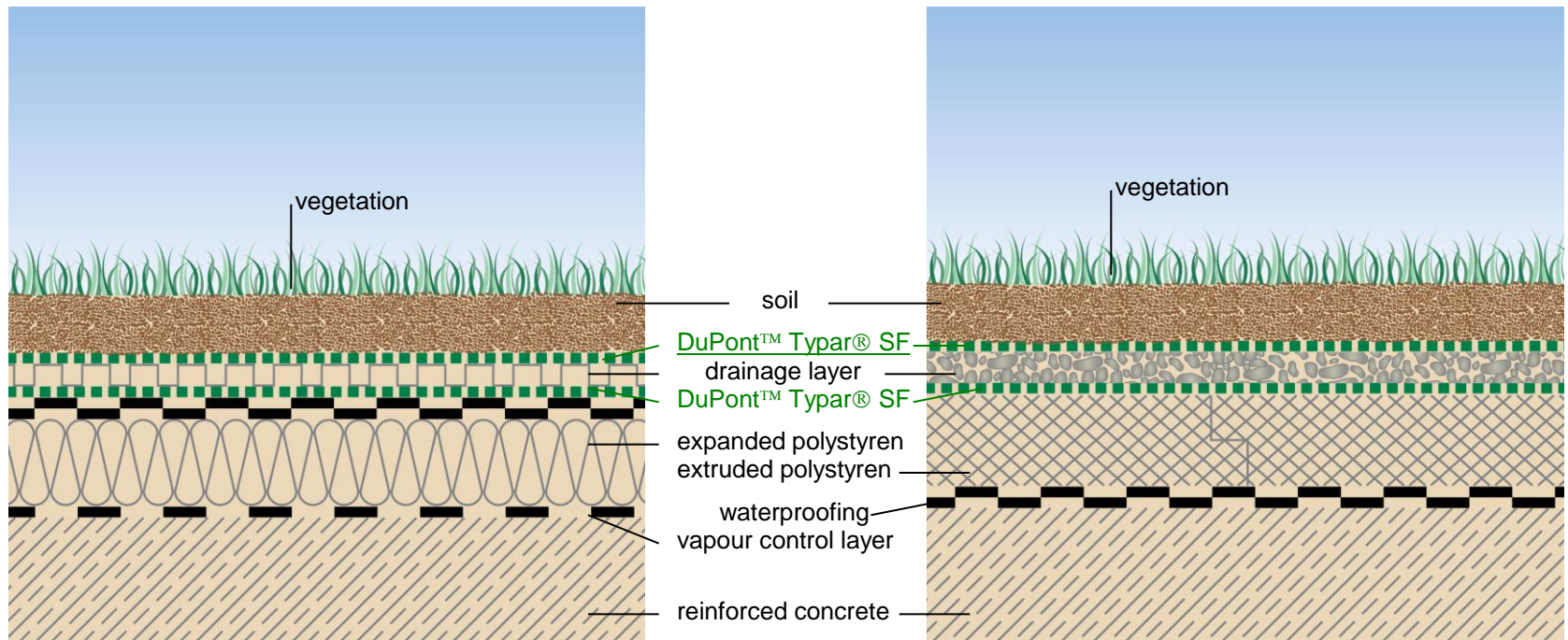
drainage and water storage layer

DuPont™ Typar® SF (separating layer)

waterproof layer (bitumen felts)

reinforced concrete or  
other roof construction

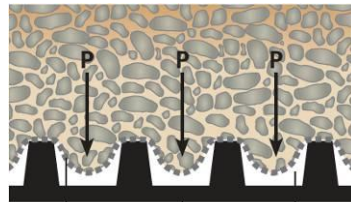
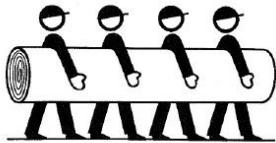
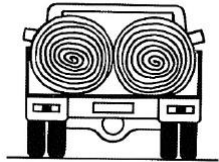
# Typar® as a filter layer in green roofs





# Typar® as a filter layer in green roofs

with other geotextile

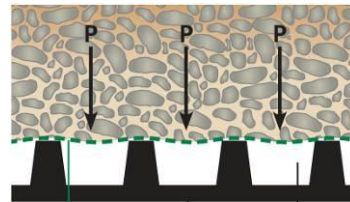
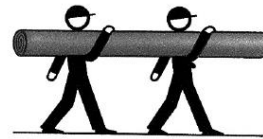
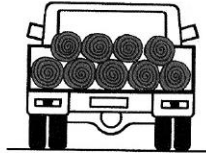


Vpichovaná geotextilie  
Nestlačitelné drenážní jádro  
Drenážní kanálky



?

with Typar®



DuPont™  
Typar® SF  
Nestlačitelné  
drenážní jádro  
Drenážní kanálky



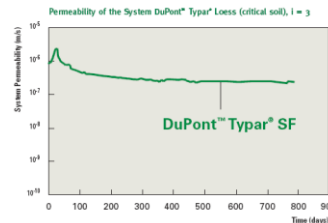
saving money for transportation

better manipulation, easier work

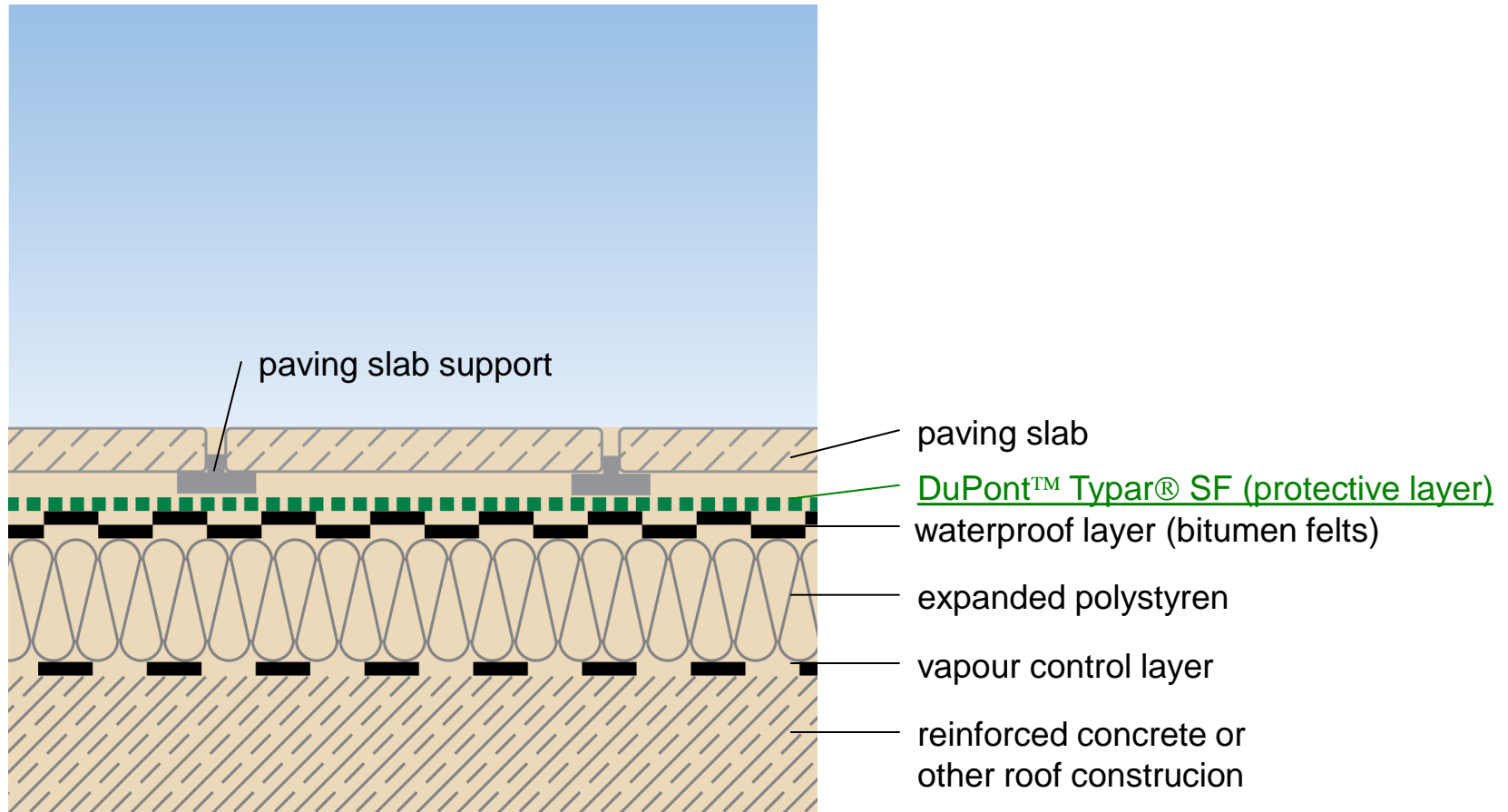
Typar® provides better drainage

Typar® does not clog

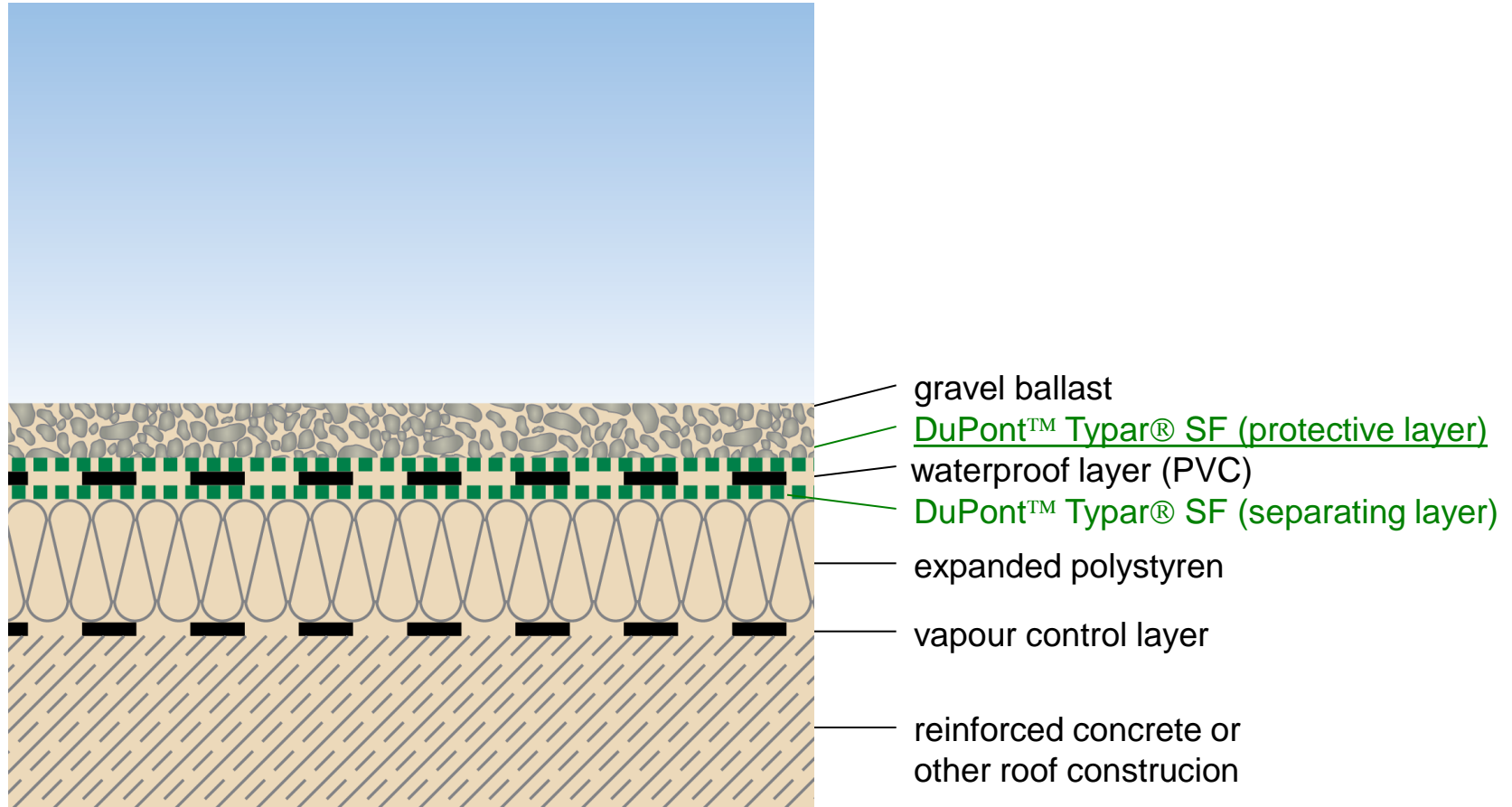
Typar® retains its permeability under in-use loads.



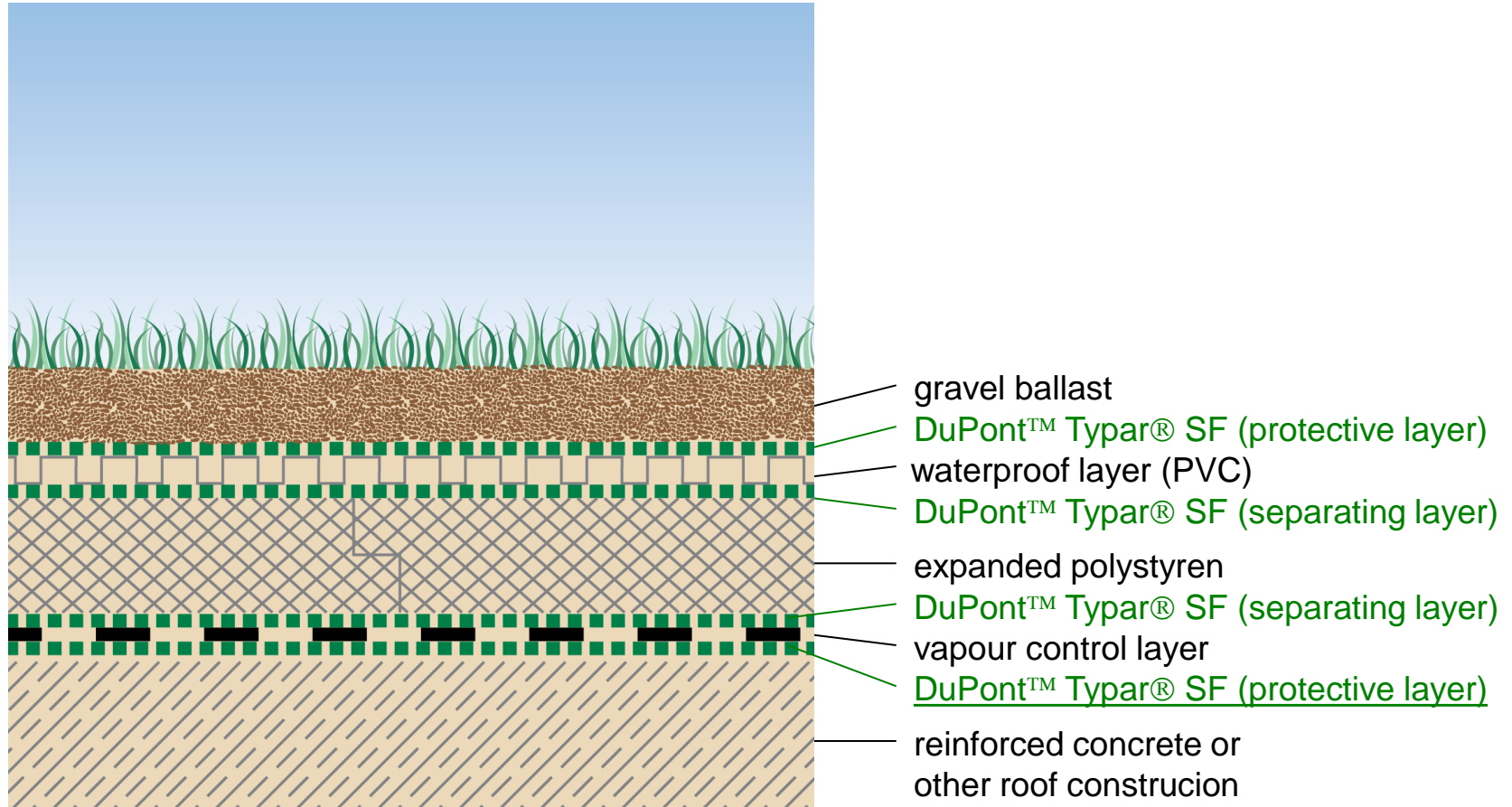
# Typar® as a protective layer above waterproof layer



# Typar® as a protective layer above waterproof layer



# Typar® as a protective layer under waterproof layer





# Typar® after 15 years in inverted flat roof

DOW company opened the roof, checked all layers and tested XPS

All tests did Building Testing and Research Institute in Slovakia

Roof was completely functional



Alianz building in Bratislava

# Typar® after 15 years in inverted flat roof

Geotextile Typar® was without visible degradation or other failures





# Aupark in Bratislava - Slovakia

## 12 000 m<sup>2</sup> of Typar®





# Waste water treatment plant in Csepel - Hungary

## 78 000 m<sup>2</sup> of Typar®

