



# Filcoten vs. Polymer trench drain

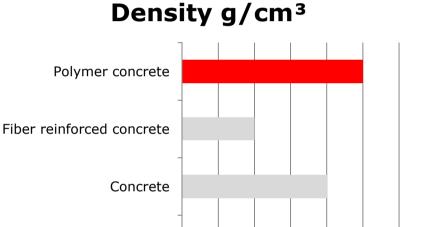




FILCOTEN



## Key facts of Filcoten



1,6 1,7 1,8 1,9 2,0 2,1 2,2

- Filcoten is a cement based composite, with 4 to 5 times higher content of fibres than regular fibre reinforced concrete products.
- Filcoten is absolutely free of chemical components like resins, catalysts etc.
- Filcoten components are produced free of releasant agents.
- Filcoten has an optimal adhesion to surrounding concrete.





### Sustainable





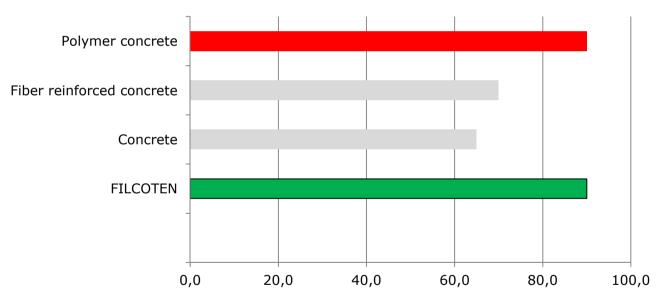
- Filcoten is free of resins, heavy metals and solvants.
- Filcoten is 100% recyclable.
- Filcoten can be used in internal living spaces.
- No aggressive agents are released when machined (Please still use mask to protect from fine dust, like for concrete machining)





## Compression strength comparison

#### Compression strength N/mm<sup>2</sup>



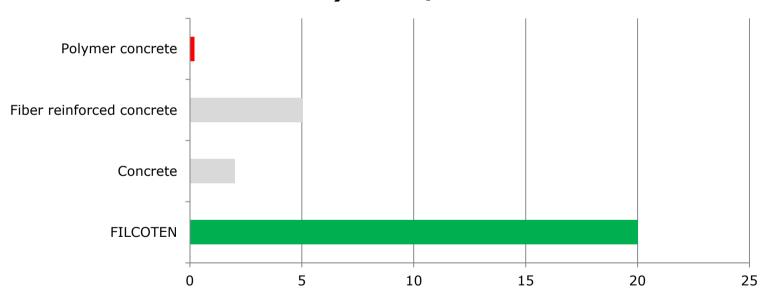
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## Impact resistance

# Impact strength (energy/surface)(Hammer blow) Nmm/mm<sup>2</sup>



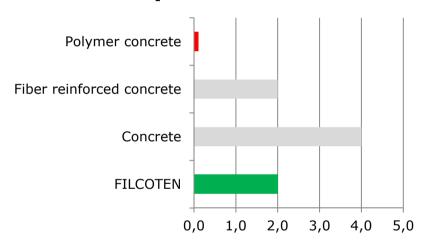
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### Frost resistance

#### Water penetration mm



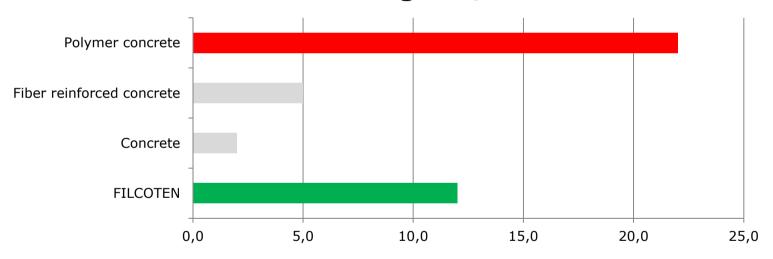
- Filcoten will absorb substantially less water than standard concrete.
- Frost damages occur mainly in the surrounding concrete due to water infiltration between the prefabricated components.
- Plastic and polymer concrete components are prone to separation with the surrounding concrete - which <u>leads to</u> water infiltration due to:
  - Non-grip surface
  - Use of releasant agents (polymer concrete)
  - Different material expansion (HDPE & PP)
- Frost resistance is increased if the prefabricated component will become one monolithic unit with the surrounding concrete with equal mechanical properties (like with the Filcoten product).





# Flexion strength comparison

#### Flexion strength N/mm<sup>2</sup>







# Temperature expansion



- Equal temperature expansion as the surrounding concrete.
- No thermal related stress possible.





### Adhesion



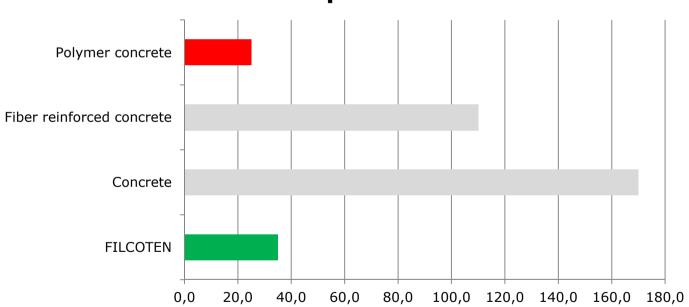
- Filcoten is cement based and has the same material properties as concrete.
- Filcoten channels are produced without releasant agents and therefore are absolutely free of grease.
- Filcoten has optimal adhesion to the surrounding concrete.
- Sealant material can be used without degreasing the surface.





### Smooth inner surface









### Machining



- Filcoten can be cut and drilled with standard concrete tooling.
- Standard adhesives for concrete can be used.
- Cracks can be fixed unlike with polymer concrete.





## Four point grate safety locking system



 Unique 4 point fiX self-locking system with 2 longitudal anti-shifting lugs





 Anti-vandalism locking available for selflocking system (Suffix -6)