



FuturZement C.1 | FuturBeton C.1

nanostructured cement/concrete

high strength ☀ CO₂-low ☀ super durability

all advantages for EUR 7,00 / ton of concrete

(additional full cost, CM900, Germany 2012-10)



Industry:

construction-industry

with FuturBeton can build more faster | sleeker | higher | cost-effective
| durable | environmentally friendly with | better surface and | less steel
the today's semi-waste GGBS turns into a super-activated high value
product (30% additive to OPC > FuturZement)

steel-industry

Product/innovation 100% ready to market proved:

- technologically → public bridge in Germany !
- economically → +7,00 EUR/ton as of 43.000 tons p. a. (1x Simoloyer® CM900)
- ecologically → 20 % CO₂-emission savings in cement manufacturing process

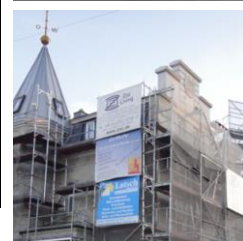
Technical advantages:

- strength 100-120 MPa after 28 days
- early strength 40 MPa on the first day
- durability & surface super fine pores, to date full performance after 1 year under water
- application except Simoloyer® plant, common cement/concrete processing route

Cost advantages:

- higher strength → less material, replace steel
- higher early strength → build faster
- higher durability → less material, build less often
- better surface → can represent cost-advantages as well
- CO₂ savings → can represent cash earnings/savings as well

compared properties	FuturBeton	ordinary concrete
compressive strength [MPa] after 2 days	> 60	--
compressive strength [MPa] after 28 days	110	30 - 55
elasticity modul [N/mm ²] after 28 days	41.900	36.000
cement content [% w/w]	17	15,7 - 16,1
density [kg/m ³]	2.440	2.000 - 2.600
water/cement ratio	0,39	0,45 - 0,6
freezing-thawing resistance / weathering rate [g/m ²]* *after 28 cycles without air entraining agents	294	400 - 800
porosity [%] - air pores	porosity data under investigation, so far very encouraging 1-year-under-water bulk tests	
porosity [%] - capillary pores		
porosity [%] - gel pores		



the bridge "Rosenthal" at Olpe/Germany established on November 14, 2012



12 ton roof balustrade, Villa ZCS at Siegen/Germany established on June 21, 2013