



## 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

**steel-industry**

the today's semi-waste GGBS turns into a super-activated high value product (30% additive to OPC > FuturZement)

### 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

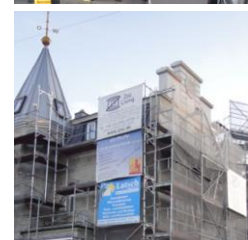
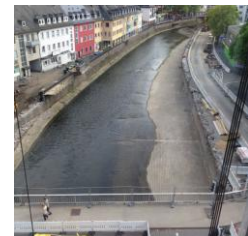
**better surface**

→ can represent cost-advantages as well

**CO2 savings**

→ can represent cash earnings/savings as well

Schedule & volumes	option (a)	option (b)	option (c)
equipment scale Simoloyer®:	CM100	CM400	CM900
estimated annual production and CO2-saving capability [t]			
GGBS	240	960	2.160
good for FuturZement/cement	800	3.200	7.200
good for FuturBeton/concrete	4.800	19.200	43.200
results in an annual CO2-emission saving	95	380	855
cost approximates and schedule			
additional product cost per ton of concrete, based on German full-cost calculation, 10-2012	€ 22,00	€ 10,00	€ 7,00
time-scale, set-up/start of the new production/product line	10 months	16 months	20 months
total cost at partner Zoz [Mio€]	1,0	2,1	3,2
total cost at partner a, b.. [Mio€]	tbc	tbc	tbc



*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*