

# SOLVITOSE FC 100

For concrete paving blocks and kerb stones

SOLVITOSE FC 100 is a shape stabilizer for moulded concrete bodies produced on vibratory and hydraulic press machines. Traditionally, a low water to cement ratios is needed to obtain bodies with sufficient green strength because the moulds are removed before setting of the cement takes place. Vigorous vibrating and pressing are needed to obtain good filling of the mould. SOLVITOSE FC 100 enables the producer to increase the water content in the mix design because it prevents belly out of the freshly moulded shapes. This facilitates the production process and leads to strong, perfectly formed concrete paving blocks and kerbstones.

### Save production cost

- Increase the plant output by reduction of cycle time with 15%
- Reduce the cement content with 10% or increase the strength of the stones
- Extend the lifespan of production machinery
- Reduce off-grade to zero
- Reduce on personnel cost

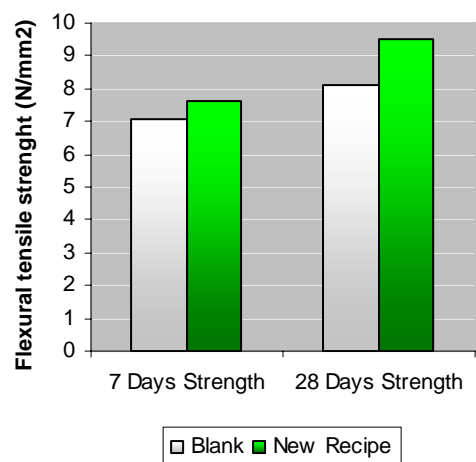
### Increase the product value by lowering the porosity

- Smoothen the appearance and intensify the colour
- Decrease the efflorescence of salts
- Improve the freeze-thaw resistance
- Increase the abrasion resistance



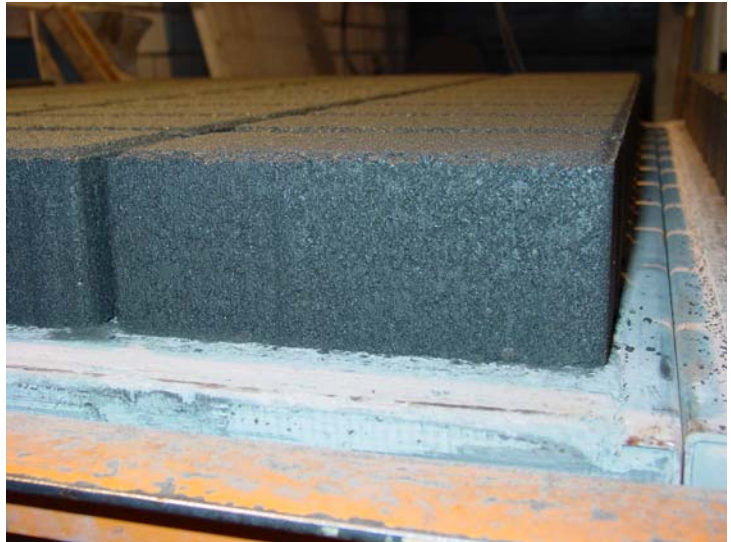
### Example mix design

	Description	Blank (kg)	New recipe (kg)
Cement	CEMENT	330	330
Sand	0-4 mm	1400	1400
Gravel	2-8 mm	550	550
Water		109	129
Solvitose FC 100		-	0.33
W/C		0.33	0.39
Density of the blocks (kg/m <sup>3</sup> )		2210	2262



We suggest using 0.1% of SOLVITOSE FC 100 calculated on the amount of fines (cement, fly ash, limestone powder) in the recipe. This allows the water content to increase up to 20% without making the concrete sticky and while retaining the dimensional stability.

We recommend adding SOLVITOSE FC 100 together with or on top of the cement and allowing some dry mixing time (e.g. 20 seconds) before addition of water.



For initial trials we suggest to increase the water contents in steps of 5 litres a time. The results of the example show that the use of SOLVITOSE FC 100 and more water lead to increased density and flexural tensile strength after 7 and 28 days (NEN 7000: 1985).

SOLVITOSE FC 100 is suitable for products meeting EN 1338 (concrete paving blocks), EN 1339 (concrete paving flags) and EN 1340 (concrete kerb units).