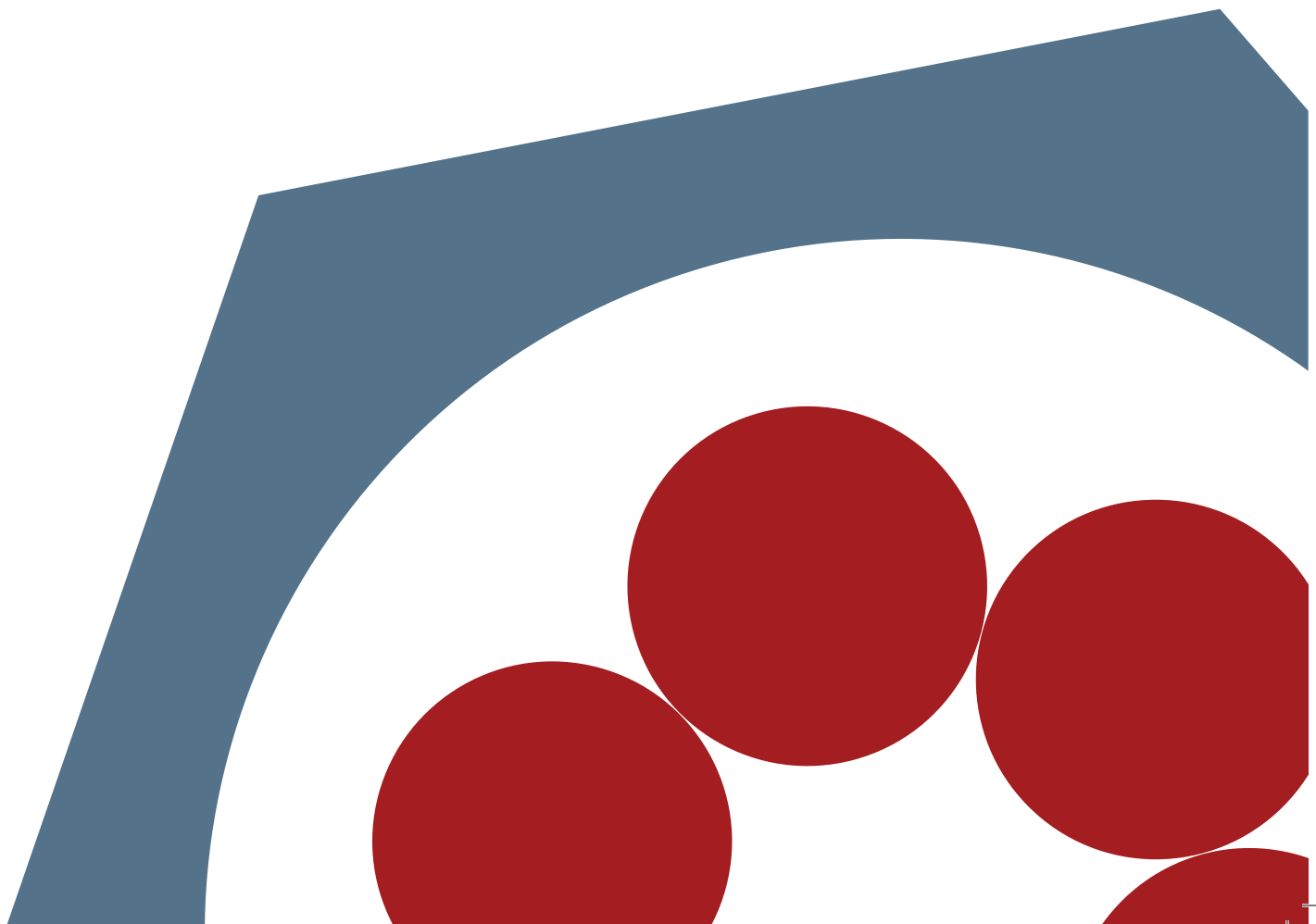




# Concretum®

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Rapid-hardening concrete for airport pavement



# Applications on airports

## Large-scale

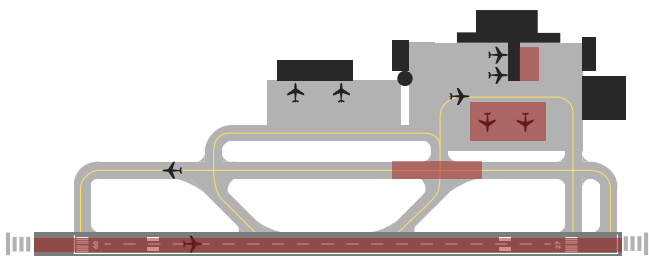


product	Q-FLASH 2/20
area per night	> 1000 m <sup>2</sup>
volume per night	> 300 m <sup>3</sup>
type of batching	batching plant on site
thickness	30 - 40 cm
night shift (closure)	6 - 8h

Concretum® Q-FLASH 2/20 can be machine laid using conventional slipform pavers. In order to ensure the material logistic it is important to either have a concrete batching plant on site or nearby (preferably airside) featuring an output capacity of 200 m<sup>3</sup>/h. Experienced contractors can replace up to 1000 m<sup>2</sup> in one night shift (closure). Using a slipform paver the centre section of a runway can be fully renewed within a single construction season. A slipform paver is used on large areas where adjacent slabs need to be renewed. In order to be efficient a minimum area of 600 - 700 m<sup>2</sup> per site and per night shift have to be processed. The range of applications includes runways, taxiways, high-speed taxiways, aprons and aircraft stands.

Concretum® provides all support necessary throughout the project:

- project planning
- tender specifications
- detailed construction programs (confined night shifts)
- evaluation of a suitable on-site concrete batching plant
- concrete mix design
- work scheduling and work preparation



## Single bays (slabs)



product	Q-FLASH 2/20
area per night	50 - 250 m <sup>2</sup>
volume per night	15 - 60 m <sup>3</sup>
type of batching	batching plant nearby
thickness	20 - 40 cm
night shift (closure)	5 - 8h

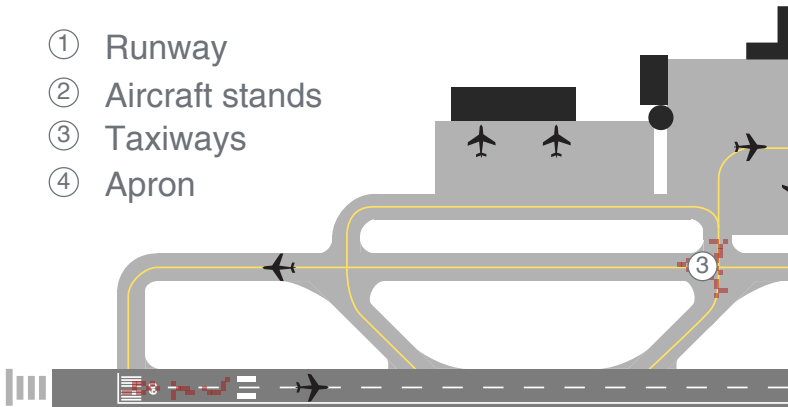
Concretum® Q-FLASH 2/20 can be placed manually. Depending on the construction area (number of adjacent slabs), equipment and experience of the contractor, up to 250 m<sup>2</sup> can be renewed in one night shift (closure). A nearby concrete batching plant with an output capacity of at least 40 m<sup>3</sup>/h is required. The transportation duration must be less than 30 minutes (including the time at the security gate). Up to 3 single independent slabs within a distance of 200 meters can be renewed. The range of applications includes renewals of slabs on runways, taxiways, high-speed taxiways, aprons and aircraft stands.

Due to project complexity and numerous interfaces an accurate planning and a distinct assignment of responsibilities is required in order to minimize the error rate and to achieve the highest possible efficiency. The concrete and surface quality depend on the equipment used and on the experience of the contractor's staff.

Concretum® provides all support necessary throughout the project:

- project planning
- tender specifications
- detailed construction programs (confined night shifts)
- evaluation of a suitable on-site concrete batching plant
- concrete mix design
- work scheduling and work preparation

- ① Runway
- ② Aircraft stands
- ③ Taxiways
- ④ Apron



## Single bays (slabs)



product	Q-FLASH 2/20
area per night	10 - 200 m <sup>2</sup>
volume per night	5 - 40 m <sup>3</sup>
type of batching	mobile batching truck
thickness	20 - 40 cm
night shift (closure)	4 - 8h

Concretum® Q-FLASH 2/20 can be placed manually with the concrete being produced in a mobile concrete batching truck on site. Three options of slab renewals are possible:

(a) The contractor of the mobile batching truck is only in charge of the concrete production (as a subcontractor), while the main contractor is responsible for the excavation of the old slab and laying the rapid-hardening concrete.

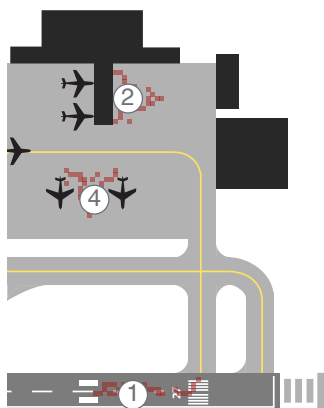
(b) A subcontractor batches and lays rapid-hardening concrete with a mobile batching truck. Only the excavation is done by the main contractor.

(c) The contractor excavates the old slabs, batches and lays the rapid-hardening concrete with a mobile batching truck. This would be the most efficient method, due to less interfaces among contractors/parties involved.

Up to 3 single or half slabs can be renewed. The range of application includes replacement of slabs on the runways, taxiways, high-speed taxiways, aprons and aircraft stands.

Concretum® provides all support necessary throughout the project:

- project planning
- tender specifications
- detailed construction programs (confined night shifts)
- evaluation of suitable aggregates
- concrete mix design
- work scheduling and work preparation



## Small areas



product	Q-CON
area per night	0.5 - 5 m <sup>2</sup>
volume per night	40 - 2000 l
type of batching	concrete mixer
thickness	10 - 25 cm
night shift (closure)	min. 4h

Concretum® Q-CON is mixed on site using a high-power compulsory mixer with a minimum volume capacity of 100 l.

## Small local repairs



product	Q-REP G
area per night	0.01 - 0.5 m <sup>2</sup>
volume per night	20 - 1000 l
type of batching	concrete mixer
thickness	5 - 10 cm
night shift (closure)	min. 2h

Concretum® Q-REP G is mixed on site using a high-power compulsory mixer with a minimum volume capacity of 50 l.



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