

## Specification guidelines

### Exposed Aggregate Finishes using Hebau self-neutralising, top surface CSE® deactivators for In-Situ exposed aggregate concrete pavement.

The correct use of Hebau CSE® Multitop, top surface de-activators in the production of exposed aggregate in-situ pavement finishes, will ensure controlled depth of aggregate reveal, restricting “pop out” of individual stones. The grade of de-activator is determined by the aggregate size and degree of reveal should not exceed 40% of the smallest aggregate component. (i.e. for a 12 mm to 6mm aggregate reveal should not exceed 2.4mm and can be less).

Where aggregate within the mix is to be exposed, incorporation of Hebau ARCON-Fluid<sup>plus</sup> is strongly advised, to restrict aggregate segregation, thereby ensuring more even distribution of aggregate at the surface. A consequence of exposing aggregate is to open up the surface of the concrete, so it is essential that the surface is protected by the use of Hebau COLORFRESH® intensive or Hebau COLORTEC® max, to re-establish surface integrity of the slab.

The use of Hebau surface deactivators, protective coatings and workability aids, will neither enhance nor detract from the designed performance of the concrete slab. MOH hardness criteria of the aggregate exposed will give a good indication of surface durability under use. Typically a MOH hardness of 6.5 – 7.00 (Granites, quartz, river gravels etc,) would all generally be acceptable, whilst most marbles and some limestones are softer, therefore may be more prone to wear over time.

For decorative concrete typical minimum slab thicknesses of 10 cm ( Pedestrian only), 15 cm ( Light vehicle use) and 20 cm ( more regular traffic use) would be the norm, with actual performance, reinforcement detail, and stress relief calculated, determined then approved by the structural engineer for all specific needs identified.

In general exposed aggregate concrete will have a comparable performance level to non-exposed aggregate concrete within any given structural design. The main considerations should be the wear characteristics of the aggregate chosen, and the structural design of the slab, both of which are outside the scope of the Hebau materials.

Benefits in the concept are:

- Improved slip resistance at the surface.
- Enhanced dirt and stain protection.
- Attractive and easily maintained decorative pavement.
- Cost effective with competitive life time costs.



Pictures: Example of exposed aggregate concrete surface where Hebau CSE® deactivators were used. More details available on request.

