

PROCESSING HINTS #1

KORODUR / NEODUR Hard aggregate layer - „fresh on fresh” application

PREAMBLE

These hints inform about the processing of e. g. NEODUR HE 65. They do not replace our currently valid data sheets. Our technical application recommendations are based on our experience. We recommend to adapt the processing to the local conditions and refer to our general terms of sale and delivery. For further information, please refer to our respective product data sheets, maintenance instructions and tender specifications.

SUB-BASE

The base concrete should have a composition which impedes bleeding. If in exceptional case bleeding should occur anyway then, before the application of NEODUR, excess water must be removed from the surface using rubber squeegee. In no case, the base concrete should contain “fillers”. Any flours or fly ashes can lead to bonding problems between base concrete / hard aggregate screed. Considering the aspect of bonding, the base concrete must not be designed as air entrained concrete (introduction of air pores).

CHRONOLOGY OF WORKING STEPS

The working steps must be scheduled in a way that allows the application of the hard aggregate screed without time pressure. After a time x, which depends on the temperature and the used cement type in the base concrete, may range between 4 to 10 hours, the base concrete is pre-treated:

1. removal of excess mixing water
2. troweling the base concrete (disk)

The best optical sign is a footprint showing on the just setting concrete (see picture).

Picture 1: Footprint



Picture 2: Troweling (with disk) the base concrete



MIXING TECHNOLOGY

Parallel to the pre-treatment of the base concrete, the hard aggregate screed mortar must be prepared. When processing bagged products, the mortar usually is mixed in pan type mixer, compressed air conveyor (Estrich Boy/screed boy), in a suitable screw pump or as loose product with KORODUR silo technique. The water dosage should range between 0,10 - 0,12 (NEODUR HE 65). In case the contractor should decide on a thinner consistency, this falls under his responsibility.

Picture 3: Compressed air screed conveyor



Picture 4: inoCOMB Cabrio screw pump, also suitable for big bag processing



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Picture 5: Screw pump



Picture 6: KORODUR silo unit with mixing technique



APPLICATION

In common practice, a hard aggregate screed, depending on the layer thickness, is applied using round leveling gauges. It must be considered, however, that the use of 10 mm gauges may not necessarily result in a 10 mm thick layer, as these might sink by a few mm into the still quite fresh base concrete.

Picture 7: Application using round bars



Picture 8: Application of the hard aggregate floor “fresh on fresh” using round bars (leveling gauges)



SMOOTHING

After the application of the hard aggregate screed, another waiting time x must be allowed before a first troweling (disk) is possible. This waiting period usually ranges between 3 and 6 hours. After a first troweling of the surface with disk, another 2 - 3 troweling passes (blade) may follow to finish the treatment of the surface (whereby the blades are gradually adjusted steeper).

Picture 9: Smoothing of hard aggregate layer with power trowel (blade) (concrete finisher)



Picture 10: Curing with KOROMINERAL CURE or KOROTEX



CURING

After the last smoothing pass took place, the area must be cured. KOROTEX or KOROMINERAL CURE can be used for curing.