

Road slab installation guide

WARRANTY CONDITIONS

Before installation begins, the subsoil on which the slabs will be laid must be tested, so that the appropriate type of base course can be selected according to the expected bearing capacity of the surface.

Subgrade preparation and slab installation

1. Remove the topsoil (humus) layer.
2. Level the ground beneath the structure to the designed grade line, removing stones, rubble, roots and similar material.
3. Where frost-susceptible soils or soils of low bearing capacity occur (e.g. peat), they must be replaced. The soil beneath the designed structure must meet the requirements of bearing capacity group G1.
4. The base course is built from aggregate, sized according to the expected loads and the bearing capacity of the subgrade. Crushed aggregate of 0/31 mm and 0/63 mm fractions is recommended. The base course must be at least 15 cm thick. The thickness of the structural layer must be adapted to the properties of the native soil and the assumed load. The compaction index of the base course must be $I_s \geq 1$.
5. A levelling layer of sand or cement-sand mix, 3-5 cm thick, is laid on the base course.
6. The difference in level between adjacent slab edges must not exceed 10 mm.
7. Slabs must be laid so that their entire surface rests on the substrate, while maintaining expansion joints of 1-2 cm between the slabs.
8. Slabs may be loaded only after silting — filling the expansion joints with sand and removing all larger debris from the slab surface.
9. Before installation, slabs must be stored on a level, hardened surface. The first slab is placed on wooden spacers measuring at least 5x10 cm. Stack height must not exceed 150 cm.
10. Unloading and installation must use a spreader beam with four-hook slings, or four-hook slings no shorter than 3 m. Chain slings must be fitted with protective sleeves to prevent the concrete from chipping where the chain meets the slab.

Why expansion joints are mandatory

Missing expansion joints cause stresses to build up, which leads to chipped slab edges and permanent damage to the surface. Expansion joints substantially reduce the risk of corners and edges breaking off due to slab movement, settlement of the substrate and changing weather conditions.

Cross-section of slabs installed on a correctly prepared substrate

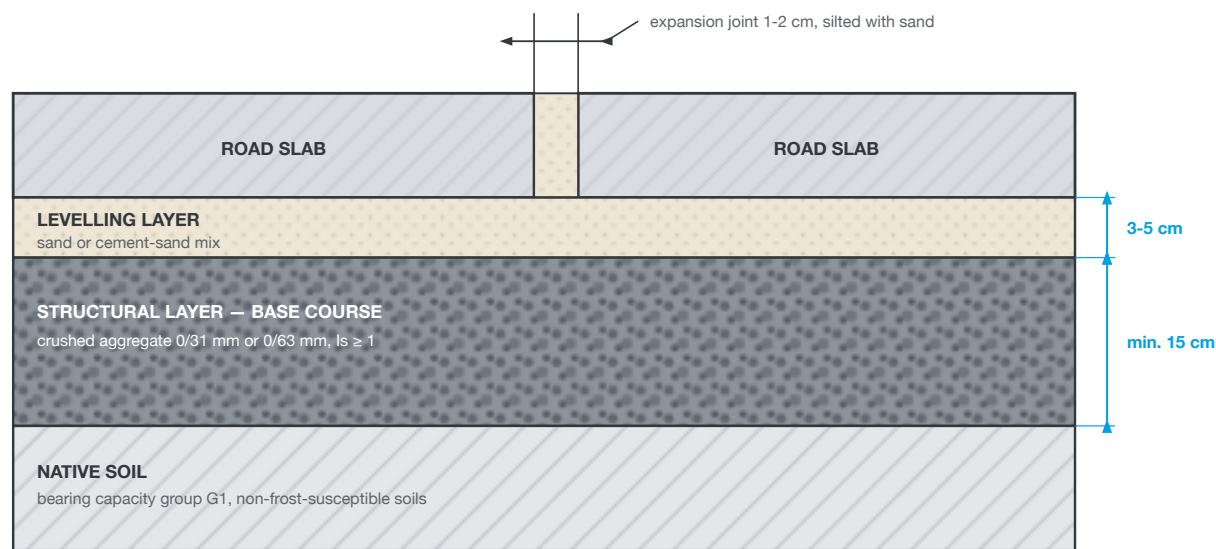


Fig. 1 — cross-section of a surface made of precast road slabs

The durability of a properly used surface made of precast road slabs depends above all on a correctly prepared subgrade, correct installation and proper maintenance of the surface.

Failure to follow the above guidelines may result in loss of warranty.

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