

GUIDELINES FOR THE USE AND MAINTENANCE OF CLINKER PAVING STONES

GENERAL PROVISIONS

1. Clinker paving stone is a highly durable ceramic paving material suited for pedestrian and vehicle traffic areas. It stands out with its high mechanical strength, as well as its resistance to freeze-thaw cycles and the effects of chemicals.
2. The sustainability of ceramic paving elements as surface finishes is influenced by the stability, strength, and future service life of the pavement sub-base. If the user does not ensure the proper and adequate use of the ceramic pavement, the manufacturer does not guarantee the conformity of the ceramic paving elements with the declared performance characteristics.
3. The user must maintain the paving stone in accordance with these guidelines. The warranty does not extend to damage caused by a failure to comply with these guidelines on use and maintenance.

LOAD AND CHOICE OF PAVING STONE THICKNESS

4. The thickness of the paving stone must be chosen based on its expected load:

Paving element thickness	Intended use
40/47 mm	pedestrian paths, terraces, and courtyard areas not intended for vehicles
52 mm	low-intensity car traffic (e.g., private driveways, car parks)
60/62/65 mm	car traffic and limited heavy vehicle traffic
70 mm and over	medium-intensity traffic
80 mm and over	high-intensity traffic, streets and open areas, and areas with cargo vehicle traffic

5. Proper structure of the base (load-bearing layers, drainage, filling of seams) is as important as the thickness of the paving stone itself.
6. Incorrectly choosing the thickness of the paving stone can lead to crumbling, cracks, displacement of the paving stones, and their early deterioration.

REQUIREMENTS FOR USE

7. It is recommended that the freshly laid pavement is left unloaded (walked on and driven on) for a few days before being put into service. This facilitates stabilisation of the paving until the soil absorbs the excess water used in construction.
8. During operation, activities that damage the structure of the product are prohibited (e.g., driving vehicles with metal tracks, operating the pavement with loads higher than those specified in the construction planning documents, storing objects with sharp edges on the pavement, dropping objects on the pavement by impact). Failure to comply with these instructions will result in mechanical damage to the structure of the product (surface scratches exceeding the permissible limits, chipping of the product edges).
9. Properly formed and fully filled joints ensure the stability and quality of the paving stone. Any washed-out seam filling must be immediately replenished using appropriate sand or special paving stone seam material. Incomplete joint filling or inadequate joint widths do not ensure the stability of the paving stones and may lead to edge splitting or displacement.

10. The pavement should be inspected periodically during use to check for sagging and seams that have become sagged or emptied. In such cases, the sagging must be repaired, and the missing joint filler must be filled immediately; otherwise, the pavement pattern may be deformed, and the edges of the paving elements may be split.
 11. Exposing the surface to excessive loads, or loads it is not intended for (e.g., heavy vehicle traffic, or the prolonged parking of heavy vehicles in areas not intended for such purpose), is not allowed.
 12. Dirt must be regularly removed from the surface of ceramic paving elements as, during use, dirt can damage the structure of the product when exposed to external loads, i.e., scratch, chip or otherwise mechanically damage the product.
 13. The storage/holding of construction or other materials on the surface of ceramic paving elements is prohibited, as dirt, staining or lubricating substances on the paving surface may mechanically adhere to the products or seep into the joints between them and leave visible, hard-to-clean stains on the surface. If dirt, staining or lubricating substances are not removed from the surface over a long period of time, or if loose materials are stored on the surface, as well as due to soil moisture, the products may change visually, including becoming mottled. To prevent stains caused by dirt adhering to the products or to reduce the possibility and intensity of such stains, we recommend the use of impregnating agents (please contact LODE SIA for information on impregnating agents and their use).
 14. Only certified products designed (suitable) for cleaning ceramic surfaces may be used to clean the paving stone, following the instructions of the cleaner manufacturer. When cleaning dirt or snow from the surface of the pavement, it is important not to damage the surface of the ceramic paving elements.
 15. Rust spots may occur during operation due to iron contamination or environmental conditions. For example, from soil saturated with iron oxide (water from such soil will transfer iron oxide to the pavement surface), from water on the pavement from metal elements, weed and insect killers containing ferrous sulphate, etc. When weeding or spraying insect control products on grass, it is not recommended to do so in areas close to the paving stone. When used on a windy day, iron sulphate products can be dispersed over a wide area by the wind, so there is a risk of the product getting on the paving stone even if the product is not used in close proximity to the paving stone. Rust stains are difficult to remove from paving stone. Cleaning products, including stain removers, that are not based on hydrochloric acid should be used. Stronger concentrations of acid cleaners can also darken rust spots, so we recommend testing the product on one paving element and assessing the results before cleaning the entire surface area. LODE SIA is not responsible for the cleaning attempts made, the effectiveness of the cleaning agents, or any undesired effects on the ceramic paving elements.
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MAINTENANCE IN SUMMER

16. Everyday cleaning: using a broom or power brush. It is not recommended to start using a power brush for cleaning until at least 1 year after the installation of the paving stone surface. Vacuum cleaning must always be avoided.
 17. Water and neutral cleaning agents may be used for removing dirt and stains.
 18. High-pressure cleaning is not recommended as it can wash out the seam material.
 19. Efflorescence is not permanent and, if exposed to rain, usually disappears on its own. If necessary, it can be removed with a brush or appropriate cleaning agents.
 20. Plants that have grown in the seams must be mechanically removed on a regular basis. The use of herbicides is not recommended.
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MAINTENANCE IN WINTER

21. Snow must be removed using a plastic or rubber-lined shovel. Mechanised equipment for snow removal may only be used if equipped with rubber-lined blades or brushes, in order to prevent damage to the paving stone surface.

22. In winter, ice often forms on the paving stone. To improve the grip of slippery surfaces, we recommend using natural stone products such as sand (only suitable for footpaths), crushed stone, or a mixture of sand and crushed stone (only crushed stone or a mixture of sand and crushed stone is suitable for traffic paths). We recommend clearing the paving stone of snow before spreading these products. It would be most effective to apply natural stone products the day before the pavement freezes. When using natural stone products, it is important to ensure that (1) the particles of the product used are heavy enough not to be blown away by the wind, and (2) the size of the particles prevents them from injuring people, damaging vehicles or other property (we recommend limiting vehicle speed and increasing the distance between vehicles where the pavement is covered with natural stone products). We recommend products with particles up to 5 mm. If you don't get the results you want with products with particles up to 5 mm, you can try products made with larger particles. Adhesion-enhancing materials used on the pavement must be removed after snow and ice melt.

23. In cases where it is necessary to remove accumulated ice, only technical salt can be used to melt the ice. The manufacturer is not liable for any damage or visual defects to the paving stone surface caused by the use of salt. Usually, however, salt does not cause mechanical damage to the ceramic paving elements themselves, but salt and moisture can accumulate in the paving joints and, through the joints, in the sub-base layers, which can later, as the paving stone dries in the spring and summer, cause white discolourations to form on the paving surface. We recommend using a less aggressive salt (salt mixture) and testing it first on a small part of the paving stone to make sure you are satisfied with the result. Regular salt (NaCl) and corrosive chemical thawing agents are not recommended as they cause damage to the seams and the environment. Also, if thawing is necessary, it is allowed to use environmentally-friendly products (e.g., calcium- or magnesium-based products).

24. In spring, it is required to replenish the seam material and clean the surface of the paving stone. Any defects (cracks, displacement, or settling) must be rectified immediately.

MAINTENANCE NOTES FOR AREAS UNDER ROOFS AND CANOPIES

25. To replace the natural washing away effect of rainwater in covered areas, the paving stone in such areas should be washed occasionally with water and a brush, using a suitable detergent if necessary (in the case of any hard-to-clean stains).

REPAIRS AND REUSE

26. Damaged individual paving stones must be replaced with new paving stones that are similar in terms of their visual and technical features.

27. Clinker paving stones can be taken out, cleaned and reused without losing any of their properties.

28. After excavation or work on underground utility lines, the paving stone surface must be restored to its original pattern and quality.

RESPONSIBILITY

29. The user is responsible for the regular maintenance of the paving stone and compliance with these Guidelines. The manufacturer does not guarantee the conformity of the products with the declared characteristics if these Guidelines for Use and Maintenance are not complied with.

These Guidelines are published at www.lode.lv and may be updated/supplemented without notice.