aerodurit® rapid screed AS 2022 and AS 2023 based on micropores, according to DIN EN 13813 CT-C30-F5.

aerodurit® AS 2022 and AS 2023 are multifunctional products, which differ fundamentally from comparable cement screeds and rapid screeds.
The most important product feature: aerodurit® rapid-setting cement screed is purely biologically-based and does not contain any synthetic chemicals or process-improving organic additives. Suitable for wet rooms and permanent wet areas, repair and renovation work.
aerodurit® rapid screed allows perfectly successful screed and concrete work. Not only professionals but also do-it-yourselfers can produce quickly walkable, ready-to-use floor surfaces, walls and structural designs without the need for complex equipment (mushy/pasty, flowable consistency, slightly self-leveling). The resulting components are not only highly permeable, at the same time completely impermeable to water.

aerodurit® rapid screed AS 2022 and AS 2023 CT-C30-F5 can be used as:

• rapid screed • light cement screed • microporous screed • insulating screed

UNIQUE PROPERTIES
No shrinkage, creepage and does not bleed!
Can be walked on after 6 - 12 h, next work step (e.g. tile) after 48 - 96 h (2 vol.% CM, observe residual moisture content!), Permeable, heat-insulating, insulating, homogeneous, can reduce the need of expansion joints, installation at extreme temperatures possible, impermeable to water, frost-proof , resistant to chemical attack.

ECONOMICS:
Accelerated construction, high daily output, good leveling properties with appropriate consistency, reduced homogeneity fluctuations.

APPLICATION Inside and Outside
For wet rooms and permanent wet areas, restauration and renovation work, underground garages, shopfitting, heated screed

TECHNICAL DATA

Compressive strength	30 N/ mm² *
Bending tensile strength	> 5,0 N/ mm² *
Adhesive tensile strength	> 0,8 N/mm²
Thermal conductivity λ	0,59 W/(m·K) (comparable screed: > 2,0 W/(m·K)
Consistency	F5 light poking sufficient
Mixing water	ca. 2,5 – 2,9 Liter/30kg
Working life	ca. 1 hour (+20°C)
walkable	after 6 -12 hours
coverable	ca. after 3-4 days (2,0 CM.-%, depending on environmental conditions)
Grain size AS 2022	0 – **8** mm
Grain size AS 2023	0 – **4** mm
Fire class	A1

Low chromate content according to TRGS 613 - Fire class: A1 - EN 13501-1

** Depending on the mixing water quantity and mixing time, the compressive and flexural strength and pore space can be influenced.*

PRODUCT YIELD
A bag (30kg) with about 2.5 - 2.9 liters of water gives about 15 - 16 liters of wet mortar, which corresponds to 1.0 m² with 15 mm screed thickness. The water requirement is very low with AS 2022 and AS 2023. Initially rigid mortar slowly becomes more fluid during the mixing process (Failure to maintain the amount of mixing water can influence the strength values!)

SURFACE PREPARATION
as composite screed:
No adhesive bridges, do not use film-forming primers. The substrate must be firm, stable, free of cracks and less resistant surface layers. The substrate must be free of separating layers, such as dust, dirt, grease, oil, paint residues. Pre-wet the substrate thoroughly.
* General: According to DIN 18560 Part 1 under point 4.2 Screed 4.2.1 General: "A screed must be as even as possible in thickness, bulk density and mechanical properties in each layer and have a surface with flatness tolerances according to DIN 18101 or 18202 , which must have a sufficient surface strength for the purpose of use. "Also in Part 4 of DIN 18560 under point 4.1 Supporting subsurface it says in this regard again: The surface may have no punctiform elevations, loose components or mortar residues.
These bumps must be covered by a leveling screed.
Joints in the supporting ground must be full-edged, have a uniform width and run in a straight line. Rising components for which a wall plaster is intended must be plastered before laying the insulating layers.

as floating screed:
The insulating layer must rest completely on the substrate. Hollow areas must be removed by appropriate measures. Cables, pipelines must be tight and at least covered by impact sound insulation.

as screed on separating layer:
The supporting surface must be flat and have a burr-free surface.
Cables, pipes and the like must be covered by leveling screed.

PROCESSING MIX TIME AND CONSISTENCY
It is imperative to comply with DIN 18560 and DIN 18353. Consistency: F5-6 depending on the amount of mixing water.

hand processing
aerodurit® micro pore quick-release screed AS 2022 and AS 2023 are much easier to process than conventional screeds (up to 50% working time savings). Thoroughly mix aerodurit® fast screed AS 2022 and AS 2023 with cold water, until air bubbles become visible (agitator: middle turn about 3-4 minutes, compulsory mixer about 4-5 minutes). To achieve the desired consistency, only add enough water to achieve a stiff to creamy consistency. (Approx. 2.5 - 2.9 L per container). The screed reaches such a consistency, so that you can pull off and rub off without much effort. Insert the fresh screed concrete homogeneously into the formwork. Only slightly compressed when needed. Shuttering times are shorter than in DIN 1045. Do not dilute the already setting material (in the hydration phase) with water.

TREATMENT
Usual aftertreatment, e.g. spraying with water or application of an aftertreatment-agent, are not to apply.

MORTAR THICKNESS
Do not fall below the required MINIMUM THICKNESS per application area. The thickness of the screed should be at least three times as large as the diameter of the largest grain.

INTERIOR WORK ESTRICH
Ensure adequate ventilation during the processing and drying phases. Be sure to observe the ventilation regulations. aerodurit® rapid screed AS 2022 and AS 2023 is a high performance product and transforms enormous amounts of moisture already during the extrusion process. These evaporate on the specifically enlarged mortar surface.

MACHINE PROCESSING
Can be processed with all screed machines. Ensure sufficient internal hose lubrication before starting, e.g. Cement slurry. During processing breaks (> 20min.) The machine and hoses must be emptied.

STORAGE
Store dry, preferably on wooden grates, protect against moisture. Do not exceed storage period of approx. 12 months.

Rapid screed AS 2023 as a heating screed can be installed as a heating screed, if exact compliance with DIN 18560 and DIN 18353 is ensured. When planning heating screeds, the heating circuits and screed areas must be coordinated. Movements must not be crossed by heating elements. Connecting cables that have to cross movement joints are in a suitable manner, for e. g. by pipe bush of about 0.3 m in length to protect.
For hot-water underfloor heating systems, the heating pipes are either in the screed above the insulating layer (type A), in the insulating layer under the screed (type B), or in a leveling screed above the insulating layer (type C).

Edge strips must allow a movement of at least 5 mm for heated screeds. Their design depends on the expected temperature difference and the thermal expansion coefficient (0.012 mm / m per K) of cement screeds. A rigid connection may not be present at any point. The position of the hot water pipes and the heating wires must be fixed before screed installation.
Special attention should be paid to the joint plan for heated screeds. The type of joint, the course of the joints and the distances between the joints must be determined by the planner depending on the heating circuits, the floor covering, the floor geometry and the screed thickness.

Field sizes from 40 m² to 65 m² may be possible depending on the properties of the paving materials.
Microporous screed reaches a residual moisture content of only 2.0 (M .-%) after 96 h. Nevertheless, the hydration and hardening process of the cement screed is not completely finished. Too early heating and too high temperatures can cause damage to the screed. The heating system is usually put into operation only three weeks after installing the screed.
Heating takes place in coordination with the heating engineer according to the corresponding DIN standards.

ATTENTION: Important notes
The thickness of a composite screed should be at least three times as large as the diameter of the largest grain of the aggregate used in the mortar. The minimum thickness for compound screeds is thus 25 mm with 8 mm largest grain.
Screeds with thicknesses ≥ 80 mm are subject to concrete technology principles and are to be dimensioned and executed in accordance with DIN 1045 as a concrete slab.
For traffic loads higher than 5.0 kN / m2 according to DIN 1055-3, generally greater thicknesses than (DIN 18560 according to Table 4) must be specified.