



# Technical Data Sheet HECK AERO iP WA

(Hochleistungsdämmputz Außen, high-performance insulating plaster for outdoor areas)

**HECK AERO iP OWA:**

Dry mixed mortar T, CS I, W<sub>C</sub> 2 according to DIN EN 998-1

**Properties:**

- Highly heat-insulating mortar (with approx. 2cm, the minimum heat insulation according to DIN 4108-2 can already be achieved, if the existing U-value (thermal transmittance) of the existing wall is  $\leq 1,4$  [W/(m<sup>2</sup>·K)])
- Excellent processing by hand or using a machine
- Ideally suitable for memorials
- Highest permeability
- As base coat for thin-layer finishing coats
- Jointless insulation
- Colour shade: white

**Areas of Application:**

- For outdoor areas, not suitable for wall bases, not suitable as finishing coat
- Part of the HECK AERO iP Dämmputzsystem (HECK AERO iP insulating plaster system), consisting of:
  - Rajasil SPB (Spritzbewurf, rough cast) or insulating plaster base mat Welnet (depending on the substrate)
  - HECK AERO iP WA
  - HECK K+A PLUS or Rajasil KFP WA (Kalkfeinputz mit Wasserabweisung, fine lime plaster with water-repellent properties)
  - Thin-layer mineral HECK/Rajasil finishing coats
- Ideally suitable for mixed masonry buildings and difficult substrates
- The user is liable for any other use exceeding these areas of application

**Composition:**

White cement, hydrated lime, aerogel granules, mineral lightweight aggregates

**Technical Data:**

Thermal conductivity measured value $\lambda_{10,lr}$ (EN 1745)	0.0345 W/(m·K)
Thermal conductivity calculated value (DIN 4108) $\lambda_B$	0,04 W/(m·K)
Water vapour diffusion $\mu$ (EN 1015-19)	$\leq 5$
Water absorption according to DIN EN 1015-18	$C \leq 0.2$ kg/(m <sup>2</sup> ·min <sup>0.5</sup> ), W <sub>C</sub> 2
Bulk density	Approx. 0.18 kg/dm <sup>3</sup>
Cured mortar gross density	Approx. 0.25 kg/dm <sup>3</sup>
Compressive strength (28 days)	Approx. 0.5 N/mm <sup>2</sup>
Reaction to fire (DIN EN 13501-1)	Building material class A2 (non-combustible)
$E_{dyn}$	< 100 N/mm <sup>2</sup>

**Consumption:**

Approx. 1.8 – 2.0 kg/m<sup>2</sup>/cm. Consumption values are reference values and greatly depend on the surface and processing technique. Precise consumption must be determined on the object if necessary.

**Plaster Base/Plaster Base Preparation:**

All surfaces must have sufficient load-bearing capacity, be absorbent and be free from dust. Install plaster profiles in areas such as wall bases, edges, end sections etc.

Remove dust and loose parts from the plaster base. Remove old and crumbling joint mortar down to a depth of 2cm.

<i>Massive, absorbing surface with sufficient load-bearing capacity (e.g. bricks)</i>	<i>Smooth, poorly absorbing surface with sufficient load-bearing capacity</i>	<i>Highly and/or differently absorbing surface with sufficient load-bearing capacity (e.g. wood-wool boards)</i>	<i>Surface with insufficient load-bearing capacity (loose plaster)</i>
Depending on the absorption behaviour, slight pre-wetting	Completely coating rough cast with Rajasil SPB  Scratch coat with HECK K+A PLUS	Reticular rough cast with Rajasil SPB	Plaster base Distanet (20 – 30 mm) or Welnet (> 30 mm)

Surfaces made from wood wool lightweight building boards, e.g. facings of roller shutter boxes, require special measures to avoid cracking (see DIN EN 13168).

**Processing and Surface Temperature:**

During the processing and drying phase, the temperature must not fall below +5°C. Lower temperatures during the curing phase can have a lasting adverse effect on product properties. At high temperatures and/or under wind load, additional measures must be taken to prevent excessively fast dehydration of the mixing water. In poorly ventilated rooms, sufficient supply of fresh air must be ensured.

<b>Application:</b>	<p>Layer thicknesses 2 to 6 cm, not more than 50 mm/layer (in the case of rough and absorbing surfaces).  Mix a bag of dry mortar with approx. 9 -10 l of cold tap water in a clean mortar mixing container using a power stirrer.  First stir half of the bag until the mortar is completely wetted with mixing water and then stir the remaining mortar. After a maturing period of 5 minutes, stir it again thoroughly.  Processing is possible with standard commercially available plastering machines (e.g. PFT G4 with spiral casing D8-1.5 wf, insulating plaster spiral, hose with a minimum length of 20 m, 30 m is ideal, spray nozzle with a diameter of 18 mm, water flow of approx. 400-500 l/h).  When applied by hand, apply a thin layer using the trowel and spread mortar only afterwards. Then press on the mortar and smooth it using the slat to achieve a level surface. In case of multiple layers, roughen the individual plaster layers. Recommended drying period of approx. 7 days per cm of plaster thickness. Drying period of at least 14 days for the application of the subsequent finishing coat under optimum ambient and surface conditions.</p>
<b>Secondary Treatment:</b>	<p>The freshly applied HECK AERO iP WA Hochleistungsdämmputz [HECK AERO iP WA high-performance insulating plaster for outdoor areas] must be protected from too quick water withdrawal (sun, wind, high temperatures), frost and rain.</p>
<b>Finish:</b>	<p>As reinforcement plaster, HECK K+A Plus or Rajasil KFP WA (Kalkfeinputz mit Wasserabweisung, fine lime plaster with water-repellent properties) is applied with a thickness of approx. 3 - 5 mm. For the subsequent application of thin-layer, mineral finishing coats, the mortar is levelled.  Minimum drying period: 1 day/mm plaster thickness. For protection against cracking, HECK AGG FINE (Armierungsgewebe fein, fine reinforcement mesh) is embedded into the reinforcement plaster in the top third. Mesh joints are overlapped by 10 cm. In all corners, diagonal reinforcements must be integrated.  After the drying period has been complied with, a thin layer of HECK K+A PLUS or Rajasil KFP WA (Kalkfeinputz mit Wasserabweisung, fine lime plaster with water-repellent properties) is applied with a layer thickness of approx. 2 mm or other thin-layer mineral finishing coats without diffusion barrier such as HECK STR (Strukturputz, textured render), HECK ED (Edel-Dekor, decorative render) or Rajasil ED WD (Edel-Dekor Washchelputz, decorative render) are applied.  Only open-pore coating systems, such as Rajasil SIF (Silikat-Fassadenfarbe, silicate façade paint), Rajasil SHF (Silikonharzfarbe, silicone resin paint), must be used.</p>
<b>Notes:</b>	<p>For the other system components, the respectively applicable technical data sheets must be observed.</p> <ul style="list-style-type: none"> <li>• Plaster joint connections must be carried out by a cut with the trowel. Construction elements, such as window sills, must be integrated elastically into the plaster system.</li> <li>• Only window sills of which the thermal expansion does not apply pressure to the plaster system may be installed.</li> <li>• In the wall base area, Rajasil LSP (Leichtsockelputz, lightweight render for wall bases) must be used.</li> <li>• The insulating plaster base mat "Welnet" is a galvanised steel grid in 1.0 x 2.1 m format with a mesh width of 16 x 16 mm and a wire thickness 1.05 mm. It is available in wave heights of 20 or 30 mm (plaster must be covered by 1 cm). It is attached by using at least 6 screw anchors/m<sup>2</sup> in connection with a mounting bracket. The UR-Z 10/100 anchor must be used for solid brickwork and the UL-R 10/100 anchor for lightweight and perforated brickwork.</li> <li>• Over structural dynamic cracks or wooden components, Rajasil Trennvlies (barrier material) must be attached between the substrate and the plaster base mat.</li> <li>• Tools must be cleaned with water immediately after they have been used.</li> </ul>
<b>Safety Instructions:</b>	<p>HECK AERO iP WA contains lime and cement and fresh mortar thus produces an alkaline reaction. Avoid contact with the skin and immediately wash off any splashes. If product gets in eyes, thoroughly rinse with water immediately and seek medical advice. If swallowed, immediately consult a doctor. Wear suitable protective gloves at work. Keep material out of the reach of children.  European list of wastes 010410  For further information, see safety data sheet</p>
<b>Storage:</b>	<p>Dry and well ventilated, storage time approx. 9 months in the original container.</p>



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