

## ALPHA INNER

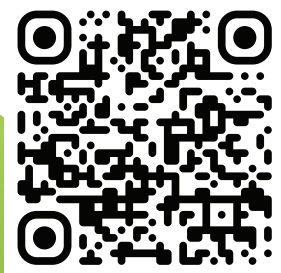
**ALPHA INNER** is a special **interior coating** designed for use on walls in residential, commercial, and office spaces. It excels in **resistance to dirt and mold growth**, while its insulating properties **reduce surface heat transfer**. This contributes to **energy savings on heating in winter and cooling in summer**.

Thanks to its composition, ALPHA INNER significantly reduces the energy consumption of a building. It saves an average of 30% of the energy needed for heating or cooling. It is washable, abrasion-resistant, and bacteriostatic—no bacteria or viruses multiply on the coating—as tested by the National Institute of Public Health. By absorbing thermal radiation, it eliminates the cause of mold growth and insulates the building from the inside.

The coating works on the principle of **reflecting thermal energy back into the room** – thermal radiation is absorbed and then radiated back into the space, increasing the thermal comfort of the interior. The walls are warm and dry to the touch, and the overall humidity in the building is reduced. **ALPHA INNER is environmentally friendly, harmless to health, and non-toxic. The coating remains functional for the entire lifetime of the building.**



### Downloads



Batch number: label

Last revision: 11/15/2023

Date of manufacture: label

Version: 01 For professional use

Expiration date: 24 months from the date of manufacture in the original unopened packaging



18 L

# Technical and material data sheet

## ALPHA INNER

### Main features

- ✓ Interior coating for homes, offices, and public buildings
- ✓ Reduces heat loss in winter and prevents overheating in summer
- ✓ **Two in one – solves mold and insulation problems**
- ✓ Significantly reduces heating and cooling costs
- ✓ Solves the cause of mold growth and resists surface condensation
- ✓ Can be tinted according to the RAL/NCS color chart
- ✓ Environmentally friendly and safe for health
- ✓ Improves the indoor environment
- ✓ Resists moisture
- ✓ **Can be used on historic buildings under monument protection**
- ✓ Vapor permeable
- ✓ Easy to apply with a brush, roller, or airless equipment

### Use

**ALPHA INNER** is designed for interior wall coatings where it is necessary to increase the energy efficiency of the building and ensure a healthier and more comfortable indoor environment.

### Technical properties

**Color:** White in the basic version, tinting can be done with water-soluble tinting pigments. Can be tinted to NCS on tinting machines using ALPHA coloring systems.

**Coverage:** Coverage per 1 m<sup>2</sup> is approx. 0.2/0.3 liters of coating material to maintain the reflective insulation properties of the facade. The total thickness will be approx. 300 microns! Coverage may vary depending on the absorbency and structure of the substrate, application technique, thickness of the applied layer, and other factors. The exact coverage for a specific substrate must be determined on a test area at the application site.

**Application temperature:** The temperature of the coating, the environment, and the substrate must be between +5 and +35 °C during application and for 24 hours after application, ideally between +10 and +25 °C.

**Storage:** Store in a dry, cool, frost-free place in the original sealed packaging for 24 months at temperatures between +5 °C and +35 °C. Once opened, use the contents within 14 days. Do not expose to direct sunlight. Opened and unused paint (if not diluted with water) can be stored in a well-sealed container for possible repairs for 3 months with as little air space as possible.

**Packaging:** 18 liters in PP buckets.

**Application information:** Recommended tools: Paint rollers, brush, small area brush, large area application by AIRLESS spraying. Mixer. Drill with mixer or special mixers with speed control.

**Recommended dilution:** The coating can be diluted. Please note that excessive dilution reduces the coverage and may impair the parameters of the paint. Dilute with drinking water.

For an 18-liter container, add 0.7 liters of clean water or a maximum of 0.5 liters of tinting pigment.

**If you are tinting the paint, do not add water.**

**Mixing:** Before use, ALPHA INNER must be thoroughly mixed with a cordless mixer to a homogeneous (uniform) consistency, according to the above recommendations, dilute with clean water. When mixing, stir the coating lightly, add water, and mix the entire contents thoroughly. Please note that excessive dilution of the coating reduces its coverage and impairs its parameters. Once the container has been opened, it is advisable to use the paint as soon as possible. The entire surface should be painted using paint from a single production batch. Remove any dried paint (not hardened) from the lid of the container and mix the paint thoroughly. When handling or mixing, proceed in such a way as to prevent excessive air from entering the coating material. When applying with Airless equipment, it is ideal to strain the coating material into a second container so that the coating material does not contain any lumps that will clog the nozzle.

**Note:** During prolonged storage and after opening the bucket, the coating may appear to be a hard, dry mass. This is because during storage, some components (microspheres) have risen to the top and the dispersion (liquid part) has settled to the bottom. However, you can mix the coating into a consistent mass – thick "Greek yogurt." Use a spatula to break up the larger, harder pieces into smaller pieces for thorough mixing. If there is dried, hard coating on the lid, do not scrape it into the rest of the bucket, otherwise you will have lumps in the coating and it will need to be strained through a sieve.

**Airless equipment:** When applying with airless equipment, remove all filters from the device! There are usually three: suction, pump, and gun. The maximum pressure of the device must not exceed 160 bar. If you hear crackling in the hose, the pressure is too high and the microspheres have broken. The recommended nozzle is 517, but it is necessary to test which nozzle is most suitable for the given application and device. Use the spray device from a suitable distance to avoid streaks or transitions that can cause optical reflections. The flow rate of the device must be at least 2.4 liters per minute.

### Drying

The coating is dry to the touch after approx. 30 minutes. The next coat can be applied after 6 hours (data applies to one coat of standard thickness under standard conditions (T = 20°C; relative humidity 60%)). Under standard conditions, freshly painted surfaces are resistant to damage (washing off of the paint layer) after 24 hours at the latest. Lower temperatures or higher humidity can prolong the drying time.

To the touch:	30 minutes
For the next coat:	6 hours
	<small>(WFT 240 µm, t = 20 °C, relative humidity 60% vol.)</small>
Fully dry and functional:	in 24 hours

# Technical and material data sheet

## ALPHA INNER

### Cleaning tools and after application

Protect all tools from drying out during work breaks and wash with water after use. Wash contaminated areas immediately with water, as dried paint is difficult to remove. Protect all tools from drying out during work breaks.

### Surface protection

If areas that are not to be coated become contaminated, wash them immediately with water, as dried paint is difficult to remove. Ensure thorough ventilation during application and drying.

Density	0,54 g/cm <sup>3</sup>
Appearance	White, whiteness 96%
Gloss level	Matte
Odor	Typical for acrylic paints
Shelf life	24 months, must not freeze
Safety instructions	Read this Technical and Safety Data Sheet

**Do not apply the paint if:** Relative humidity is higher than 70%. The moisture content of the substrate is more than 4%, concrete more than 2.5%

**Substrate and substrate preparation:** The substrate must be dry, cohesive, free of impurities and active biological infestation (mold, algae), non-salty, non-greasy, chemically stable, mature. The substrate must be solid, dry, free of cracks, crevices, dust, and flaking parts. The substrate must have the same absorbency and structure across the entire surface. The substrate must be sufficiently flat; any unevenness and imperfections will be copied by the coating.

**Composition:** If you are only applying ALPHA INNER, apply ALPHA TOTAL PRIMER in the first step according to the instructions in the Technical and Material Data Sheet.

If you want to achieve greater thermal comfort or are dealing with walls that get very cold and are damp, apply ALPHA TOTAL PRIMER, then ALPHA ISOLATION in a 1 mm layer, and only then can you apply ALPHA INNER.

**Procedure and application:** After opening the bucket, thoroughly mix the entire contents with the coating material immediately before application using a mixer and dilute with water if necessary, but no more than 4% by weight of the entire package. (AKU with screw, etc., mixer, 150 rpm).

You can adjust the coating by adding water according to the recommended dilution, see above. When applying multiple coats, observe a technological break of at least 6 hours between coats. For new substrates or substrates with significantly different shades, apply more coats of ALPHA INNER coating as needed or undercoat with ALPHA COLOR interior paint.

If the final application is to be colored, the previous (under) layers must be white, and only the top layer will be colored. This will ensure reflective insulation and thermal function.

The prepared coating can be applied immediately, in at least two coats. Apply with a roller, brush, or spray equipment. The previous coat (layer) must be completely dry. Coating should be carried out at ideal temperatures between +5°C and +35°C. Do not coat in high humidity environments or on damp substrates. During application, we recommend stirring ALPHA INNER occasionally, ideally every 15 minutes. Contaminated areas, tools, and work equipment must be washed before the coating dries. Apply evenly and without interruption.

The coating is dry to the touch after approx. 30 minutes. The next coat can be applied after 6 hours (data applies to one coat of standard thickness under standard conditions (T = 20°C; relative humidity 60%)). Under standard conditions, freshly painted surfaces are resistant to damage (washing off of the paint layer) after 24 hours at the latest. Lower temperatures or higher humidity may prolong the drying time.

If you are applying the coating with a spray device, it is better to pour the mixed coating material through a strainer into a second container to avoid small clumps of microspheres that could clog the nozzle.

The total thickness of the applied ALPHA INNER coating must be at least 300 microns.

### Warning and general instructions

**Processing conditions:** The substrate and air temperature must not fall below +5 °C. During application, avoid direct sunlight, wind, or high humidity. In conditions that promote rapid drying of the interior coating (temperature above +35 °C, drafts, heated substrate, etc.), the applicator must consider all circumstances (including, for example, the size of the area) affecting the possibility of proper application, especially joining. In conditions that prolong drying (especially low temperatures and high humidity), slower drying of more than 12/24 hours must be expected. High temperatures, especially in summer, shorten the drying time. High humidity or low temperatures (e.g., in late autumn) can significantly prolong the drying time and adversely affect the final color shade or properties of the coating.

**Color shade:** The intensity of the final color shade may be adversely affected by the condition of the substrate, temperature, or humidity. In particular, with an uneven substrate (structure, absorbency) or when applied in variable "weather" conditions, there is an increased risk of uneven coloration (risk of staining).

The tinted ALPHA INNER coating is used as the final/last layer; the previous layers will be in basic white!

Color shade consistency can only be guaranteed within a single production batch, so it is recommended to order the required amount of material for the entire object at once. When processing different production batches of the same shade on a single surface, it is necessary to ensure that they are thoroughly mixed together. Mechanical action may cause a color change on the surface of the coating (e.g., rubbing off of color pigments). This phenomenon does not affect the technical functionality of the coating and is not related to the quality of the delivered product. Differences in color shades between sample colors and original products are possible for technological reasons (different types of substrate and printing technology). With this in mind, it is recommended to apply test samples before starting the application. Since it is not always possible to guarantee completely identical processing and curing conditions for the samples presented and the interior materials subsequently supplied, any slight color difference cannot be considered a defect.

# Technical and material data sheet

## ALPHA INNER

### Maintenance and restoration of finished surfaces

To maintain the functional and decorative parameters of the coating in the long term, it is advisable to regularly inspect and maintain the coated surfaces as follows: sweep, vacuum, or wash off loose dirt. Remove more stubborn dirt using universal cleaning agents and then wash with clean water.

**Safety precautions:** See the product safety data sheet for details.

Do not eat, drink, or smoke when working with ALPHA INNER coating. We recommend protecting your eyes with goggles with side shields. If swallowed, rinse your mouth with water. If the product gets into your eyes, rinse them with running water. If symptoms persist, seek medical attention. After washing, treat the skin with a regenerative cream. Keep out of reach of children.

**Disposal of packaging:** The packaging is fully recyclable. The material is not classified as environmentally hazardous. Dispose of unused material or packaging in accordance with applicable regulations. Dispose of product residues as mixed construction and demolition waste.

### Other information

This technical data sheet, provided as part of our support to customers and processors, has been compiled based on our own experience and the current state of scientific and technical development. The procedures and recommendations provided herein represent, in a general sense, optimal and safe solutions, but are not legally binding and do not establish a contractual relationship or additional obligations under the purchase agreement. Nor do they relieve the processor of the responsibility to verify the suitability of this product for its intended use under specific conditions. The consumer is responsible for the correct use of the product. The information provided in this technical data sheet is based on laboratory findings and our professional experience with the aim of achieving the best possible results at a professional level when using the product. We accept no responsibility for damage caused by incorrect use of the product or its inappropriate selection. We therefore recommend that the buyer or user test our materials professionally and technically to ensure that they are suitable for the intended purpose under the given conditions in the given object.

This technical data sheet loses its validity upon the publication of its amendment. The manufacturer reserves the right to make possible later changes and additions. The manufacturer reserves the right to change the information in technical and promotional materials without prior notice. Updated versions of technical data sheets are available from the manufacturer upon request. All information in this manual is non-binding.

### Manufacturer



**ALPHA CZECH s.r.o.**  
U Plynárny 348/83  
101 00 Prague 10  
Czech Republic  
[www.alphaczech.com](http://www.alphaczech.com)