

Maintenance and Use Instructions

Part of the Integrated Architect's Manual



Extreme Performance EPS Coating System

THE PROCOAT XP THERM CLAD & DECO SYSTEMS

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This document includes the instructions for a maintenance of Procoat XP Therm facade claddings and decoration systems (hereinafter "Procoat XP" or "systems") factory prefabricated with the Procoat XP coating with thermal insulation of expanded polystyrene (EPS).

The instructions for maintenance are compiled upon current technical knowledge and are updated within the course of time. The instructions were prepared as a collection of basic instructions. Any case above the range of these instructions should be evaluated individually and consulted with the Producer of the system.

Introduction

Finishing paints are organic coatings which need to be cleaned and maintained regularly to ensure that the long-term protective properties of the Procoat XP coating are retained. The facade cladding products, decorations, compositions, window sills, parapets, corner elements, columns, sealing components, flashings and other finished components of buildings are exposed to many kinds of impurities and pollution in the air. These include sulfur, chlorine and nitrogen compounds causing acid rain, and various mineral salts, dirt and soot. These impurities together with water and UV radiation of the sun affect the finish paint applied over the Procoat XP coated products. The effects are worst on those areas of the building where impurities are not washed away by rainwater.

From the point of view of the durability of system are the damages and openings that expose the insulation layer, in which the impurities come into direct contact with the surface under the Procoat XP coating. Impurities in this case get behind the Procoat XP coating and reduce the useful life. The effect of the impurities in the air is greatest close to polluted industrial and in coastal areas. Emissions containing sulfur or chlorine are especially harmful. Thus the regular maintenance of wall surfaces is an important contributor to Procoat XP coating's useful life.

Annual inspection

Buildings should be inspected regularly. If any defects are found in the coating they should be repaired immediately, in order to ensure long life time. The annual inspection should include the following procedures:

Visual inspection

Visual inspection of the coated surfaces should be carried out once a year as a general inspection. A more thorough inspection should be carried out every 3 years. The coated surfaces should be inspected at a viewing distance of 5 feet. After 10 years period has expired, the surface should be thoroughly inspected every two years.

Cleanliness of horizontal string course, parapets and flashings

Check the cleanliness of horizontal string courses, parapets, window sills, protective flashings. Dirt and soil cause a paint layer damage. Dirty horizontal string courses and flashings also spoil the appearance.



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Repair of mechanical damage

During use an intentional or unintentional mechanical damage of the Procoat XP Therm system may occur. Purpose of the measure is to eliminate the damage in order to prevent creation of conditions for relatively quick devaluation of the system by climatic influences and to reach satisfactory appearance in the damaged place.

Touch-up repairs and re-painting

It is always worthwhile to repair any damage which occurs to the paint layer and especially at the level of the Procoat XP coating as soon as possible. Only Procoat XP Touch-up repair mortar should be used.

Before repairing the area, it is recommended to clean the damaged area and ensure it is dry. After it is dried, Procoat XP touch-up material is applied, sanded smooth (or to shape) and after drying a primer and paint layers are applied. It is recommended to use the same method of application of paint as was used to achieve the final coat in the respective area (brush, roll or spray).

Repairs in the event of cracks

In the event of a crack, first of all the reason of the crack must be considered. If the crack appeared due to improper application, the damaged area is cleaned from debris and loose material up to the strong material surface is reached. The Thixocoll glue is used to fill in the gap. After drying the area is sanded to level and covered with Procoat XP Touch-up mortar, primed and painted to texture. Repair of local damage should be done as soon as possible in order to prevent formation of secondary damage by humidity penetrating through the damaged surface treatment or to prevent extension of the damage.

Maintenance of larger damaged area

If the damage area is deep - Polyurethane Foam or liquid Polystyrene Foam is used to fill in the gap. After drying it is covered with Procoat XP touch-up mortar. If the damage area is wider than 12 inches, it is recommended the area to be cut away and replaced with a new product, installed according to the Procoat XP Application Instructions

Removing snow and icicles

Tree leaves and other garbage laying on the roof covering should be removed before the winter season. Pits and drain pipes should be cleaned at least once a year.

Note: For rainy and snowy climates, all parapets, window sills, and top parts of profiles protruding more than 4 inches from the facade, it is compulsory to install pre-painted galvanized steel flashings. For window sills tile, stone or GRC can be used, according to designer.

It is recommended to remove snow and icicles that form on the profiles with big protrusion, parapets, walls. Use of proper safety measures have to be applied to prevent tools from damaging the paint, seals and the galvanized coat of the flashings.

It is strongly forbidden to leave on the panels tools and accessories (e.g. after installation), pieces of metal plates, shavings and other metal objects which may cause corrosion and pose a threat to users, e.g. if they fall down or are left to rust.

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Topcoat refreshing with preventive preservative coating (primer, undercoat and paint)

Climatic influences cause strain on Procoat XP Therm coating layer. Effective preventive measure for increasing of external coating layer resistance to climatic influences is application of protective coating after 10-15 years from system realization if a long term use of the system (over 40 years) is planned. The renewed paint coat prolongs effectively the service life and removes small defects incurred at original realization.

Re-sealing flexible connection and joints

Seals at connections, windows, movement joints and other applied seals must undergo regular controls and be replaced if damaged.

Cleaning and removal of dirt

Rainwater is usually sufficient to keep color coatings clean if sufficient slopes are provided in the design of the string course profiles. However impurities, such as stronger dirt, moss and leaves from trees, however, should be cleaned off the facade cladding products, profiles and horizontal flashings - once a year.

Finish coat (paint) should be cleaned with a soft brush and water or high-pressure water (725 psi from safe distance). More stubborn dirt can be removed using a cleaning agent suitable for paint coatings. The rinsing should be carried out from the top of the facade downwards after the cleaning agent has taken effect for a few minutes. Usual maintenance can be done using water with mild detergent. It should be noted that the use of unsuitable or excessively strong cleaning agents will damage the paint coat. Abrasive cleaning methods must not be used.

The frequency of cleaning will depend on many factors including:

- The geographical location of the building
- The environment surrounding the building, i.e., marine, industrial, or a combination of these environments, etc.
- Levels of atmospheric pollution
- Prevailing wind
- Protection of the building by other buildings
- Possibility of airborne debris (e.g. sand/dust, etc.) causing erosive wear of the coating
- If the environmental circumstances change during the lifetime of the building (e.g. rural becomes industrial)

Cleaning by power water

Soiled Procoat XP Therm final surface treatment - as a result of influence of polluted environment does not reduce thermal insulation qualities of the system. Its unacceptability is given by a visual influence. The negative visual influence is improved by cleaning with hot power water, eventually by hot water or cold water with addition of surface active agents.

Pressure of the water must be adapted to the given conditions - upon realized test of the cleaning in order to prevent damage of the Procoat XP Therm system. Reduction of the pressure is done by increasing of distance of the nozzle from cleaned surface. Maximal allowed temperature of water is +120 °F. If surface active agents agreed by paint coat producer are used, its remnants may not remain on the cleaned surface after termination of the cleaning. For that purpose a perfect washing by water is essential. The cleaning is recommended to made in summer time. It is not allowed to realize cleaning within the period characterized by frosts.

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Washing of surface of panel facings is carried out to remove all visible dirt influencing aesthetics and having negative impact on durability of anti corrosion protection. In case cleaning dirt with water is difficult, panels can be washed with water laced with detergent. Gentle cleaning agents soluble in water with accepted pH 4-9 are recommended. After each washing the cleaning agent must be precisely rinsed with clean water. In special cases, if use of industrial cleaning and disinfecting agent is necessary due to hygienic requirements, recommendations of the agent producer must be followed. It is required to undertake test washing (on the small surface) in order to check if the agent does not damage or soften organic coating. Cleaning agents in concentrations indicated by the producer with appropriate strength and temperature (not exceeding 85°F) should not remain in contact with coating longer than 30 minutes. The pressure of clean water used for rinsing may not exceed 725 psi on the outlet of nozzle, and at the hitting point the pressure of the stream of water should not exceed 6 psi (such pressure creates a stream of 725 psi with nozzle angle of 15° in the distance of 8 to 12 inches from a wall). Rinsing should be done very precisely, starting from the upper part of a room, facility, etc so the entire cleaning agent is rinsed off. It needs to be remembered that the system of draining water should be precisely rinsed at the end (example sewerage, drains, etc.). The temperature of water should not exceed 85°F unless water is used to remove grease (in this case, temperature can temporarily rise to 120°F). Grease can be removed with soft cloth and painter's naphtha. Surfaces cleaned in such way must be rinsed with clean water immediately. Organic dissolvent or abrasive cleaning agent should be avoided.

4. Algae

The algae occurrence on the surface of Procoat XP Therm is mainly caused in specific areas by the cooling of the outer layers of the system below the dew point of the ambient air. This leads to a full condensation on the surface of the system, which is together with the substances in the air and rainwater fertile ground for the growth of algae. Algae by themselves do not cause Procoat XP Therm damage and are more aesthetic problem. Their dead leftovers, however, creates favorable conditions for the growth of other organisms, such as mosses that by its activity can in long term damage mechanically the topcoat.

Preventive measure against the occurrence of algae is high pressure water cleaning facades once per year. Algae can be removed by using highly effective algaecide outdoor cleaner. System manufacturer recommend dilution 4%, (it means 4% of the algaecide cleaner and 96% of drinking water). In the case of a strong attack, (continuous growth) mechanically or by using a high-pressure device with cleaning solution removes dirt and growth of microorganisms. We paint the base by 4% solution of the algaecide cleaner (without interruption in the wet, at least 2x) to active substances penetrate deep into organisms in the substrate. After 7 to 10 days, will be removed from the surface the dead microorganisms by pressurized water.

The work cannot be performed before and after the rain. The treated surface must be at least 24 hours protected from rain.

Maintained, clean and surveyed facades are suitable to provide long term qualities of the Procoat XP Therm CLAD & DECO Systems.



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Guarantee / Warranty

PROCOAT XP products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with PROCOAT XP written instructions and (b) in any application recommended by PROCOAT XP, but which is proved to be defective, will be replaced.

No liability can be accepted for the information provided in this leaflet although it is published in good faith and believed to be correct. PROCOAT XP reserves the right to alter product specifications without prior notice, in line with Company policy of continuous development and improvement.

