



AMERLUX

Protective Coatings

Permapox OA 5600 Epoxy Filler

Product Data / Application Instructions

- Excellent surfacer for concrete and steel surfaces
- Fills and seals most voids and air pockets in single application
- Easily mixed and applied

Characteristics

Permapox OA 5600 is a 100% solids epoxy filler compound to fill holes, voids and surface discontinuities in concrete up to ± 20 mm across as measured in the largest dimension. A single application will fill or seal most air pockets and holes. On concrete block surfaces, Permapox OA 5600 provides a smooth surface for applying coatings.

Typical Uses

As a high-performance epoxy filler on steel and concrete it is applied in nuclear facilities, fossil fuel plants, sewage and waste treatment plants, food and beverage plants, chemical processing plants, pulp and paper mills, textile mills, steel mills, and mining and metal finishing operations.

Application data summary

For complete information on procedures, equipment and safety precautions, see the application instruction as accompanying shipment. Like all high-performance coatings Permapox OA 5600 must be applied as recommended to obtain the maximum performance.

Physical Data

Finish.....Smooth

Colour Off white*

Substrate Concrete, Steel

Volume solids 100%

VOC**

EC SED 1999/13/EC..... 2 g/kg (4 g/l)

Components..... 2

Curing Mechanism By solvent release and chemical reaction between components

Mixing ratio (by weight)

resin 2.8 parts

cure 1 part

Mix only full units. Make no additions or deletions. Any deviations will inhibit curing and alter final physical properties. Do not mix more material than can be used within the pot life. Material which has begun to set is unsatisfactory and must be discarded

Calculated coverage.....28 m²/kg at 25 μ m

Based on application over a smooth and flat surface, not including material for filling or air pockets, voids or holes.

Specific gravity.....1.42 kg/l (mixed product)

Flash points (Closed Cup)..... °C
OA 5600 cure 93
OA 5600 resin 93

Typical Properties (after 7 days at 20°C/68°F)

Tensile strength
(ASTM D412)..... 21 N/mm²

Compressive strength
(ASTM C579)..... 88 N/mm²

Modulus of elasticity
(ASTM C580) 66.00 N/mm²

*Surface discoloration occurs on exposure to sunlight or certain chemical agents. However, product performance is not affected.

** VOC figures are quoted according to both the EC directive 1999/13/EC which are theoretically calculated figures and the UK PG6/23(92) Appendix 3 which are practically determined figures.

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Surface Preparation

Coating performance, in general, is proportional to the degree of surface preparation. Prior to coating, all surfaces must be clean, undamaged, dry and free of all contaminants, including salt deposits.

STEEL - Prepare surface in accordance with Application Instructions for specific primer being used.

Concrete must cure a minimum of 14 days and must have attained 80 percent of its physical properties before application of Permapox OA 5600.

Formed surfaces (verticals and overheads) must be adequately vibrated to minimize air bubbles and holes. Select a form facing material which will produce a smooth, hard uniform texture on the concrete. Do not use form release agents, such as form oils, that will deposit a residue on the concrete surface. Use only film forming release agents that will not impart residues onto the surface. Repair all defects. All fins and projections must be completely removed. Air blast formed surfaces using high pressure 7 kg/cm² compressed air to open air bubbles or holes crusted over with a thin laitance layer. High pressure air line must be equipped with operating oil and moisture separators.

Application Equipment

Apply Permapox OA 5600 epoxy filler compound to the surface using a short nap paint roller or trowel. Spread and work the filler compound across the surface filling the voids using a floor trowel or wide bladed putty knife. Continue working the filler compound across the surface, applying pressure to achieve a smooth finish. Leave only a slight film above the surface plane. The filler compound should appear somewhat transparent allowing the concrete surface or concrete block texture to remain visible.

A single application will provide a suitable surface to receive coating over concrete blocks. For complete filling and sealing of formed concrete surfaces to receive Permapox protective coatings, a second application may be required. Allow overnight curing at 20°C/68°F, or until first application is set. Do not exceed three days at 20°C/68°F before the second application. When making second application, use only reasonable pressure to build the film thickness to approximately 125 to 250 µm above the surface plane, and at the same time remove ridges left during spreading of the filler compound by the application tool. Repair all holidays with Permapox OA 5600 before applying coating.

Application Data

Substrate concrete, steel, masonry

Application methods squeegee, roller, trowel, spatula

Environmental Conditions

Optimum material and surface temperatures are between 18 and 27°C (64 and 81°F). Store material within this range prior to use. Below 18°C/64°F workability is reduced and application more difficult. Above 27°C/81°F the working time decreases.

OA 5600 can be applied to surfaces that are as low as 10°C/50°F; although curing will be retarded, typical properties of the OA 5600 will not be affected.

Application under direct sunlight and rising surface temperatures can result in bubbling of the filler compound due to release of air or moisture from the concrete. Shade concrete that has been exposed to direct sunlight for 24 hours prior to application of OA 5600 and keep shaded until after initial set has taken place. Where surface temperatures are rising, it may be necessary to postpone application.

Pot life (at 20°C/68°F) 2½ hours (ASTM C308)

Pot life is dependent on temperature and quantities mixed. Initial

setting time (at 20°C/68°F) 18 hours (ASTM C308) Drying

times (at 20°C/68°F)(before top coating)

minimum 18 hours

maximum with

OA 5600 72 hours

If maximum recoat time has been exceeded, roughen surfaces.

Induction time (at 20°C/68°F) not applicable

Cleaner OA 55

OA 5600 Permapox Epoxy Filler

Application Procedure

Permpox OA 5500 is packaged in two components in the proper proportions which must be mixed before use (20 litre unit):

1. Flush equipment with recommended cleaner before use.
2. Stir both resin component and cure component to an even consistency with a power mixer.
Add cure to resin and continue stirring until homogeneous.
3. For conventional spray, thin only as needed for workability with no more than 10 vol % of recommended thinner.
Thinning is normally not needed for airless spray.
4. Apply a wet coat in even parallel passes. Overlap each pass 50% to avoid bare areas, pinholes or holidays. Give special attention to corners, welds, rough areas, edges.
5. Normal recommended dry film thickness per coat is 125 µm (5 mil). Maximum dft per coat should not exceed 250 µm (10 mil) per coat.
6. The application of a wet film thickness of 150 µm (6 mil) will normally provide 125 µm (5 mil) of dry film.
7. Check thickness of dry coating with a non destructive dry film thickness gauge such as Mikrotest or Elcometer. If less than specified thickness, apply additional material as needed.
8. Small damaged or bare areas and random pinholes or holidays can be touched up by brush.
9. Clean all equipment with recommended cleaner immediately after use or at least at the end of each working day or shift. When left in spray equipment, Permpox OA 5500 will cure and cause clogging.

Shipping Data

Packaging

OA 5600 resin 5.34 kg in 5 L can

OA 5600 cure 1.9 kg in 2 L can

Shipping weight kg

OA 5500 resin..... approx. 5.60 kg

OA 5500 cure..... approx 2.2 kg

Minimum shelf life

Resin and cure 1 year from shipment date

Storage out of sun light.

Shelf life 1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C.

Safety Instructions

1. Ventilate work area.
2. Check to ensure that fire or explosion risks are eliminated.
3. Cover all cuts or wounds.
4. Avoid inhaling or ingesting product. (Use mask and goggles for all spray applications).
5. Cover skin as much as possible.
6. Wash hands regularly. Use suitable soft soap.
7. Protect eyes. If product gets into eyes wash out with water until clear. Seek medical assistance.
8. In the event of accidental ingestion seek immediate medical assistance.
9. Take extra care when using airless spray equipment to avoid accidental injury.

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Caution

This product is flammable. Keep container closed. Use with adequate ventilation. Avoid prolonged and repeated contact with skin. If used in confined areas, observe the following precautions to prevent hazards of fire or explosion or damage to health:

1. circulate adequate fresh air continuously during application and drying;
2. use fresh air masks and explosion proof equipment;
3. prohibit all flames, sparks, welding and smoking.

Do not empty into drains. Take precautionary measures against static discharges. For specific information on hazardous ingredients, required ventilation, possible consequences of contact, exposure and safety measures see Safety Data Sheet.

Safety

Since improper use and handling can be hazardous to health and cause of fire or explosion, safety precautions included with Product Data/Application Instruction and Material Safety Data Sheet must be observed during all storage, handling, use and drying periods.

Warranty

OAL warrants its products to be free from defects in material and workmanship. OAL's sole obligations and Buyer's exclusive remedy in connection with the products shall be limited, at OAL's option, to either replacement of products not conforming this warranty or credit to Buyer's account in the invoiced amount of the non-conforming products. Any claim under this warranty must be made by Buyer to OAL in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify OAL of such non-conformance as required herein shall bar Buyer from recovery under this

warranty.

OAL makes no other warranties concerning the product. No other warranties, whether express, implied or statutory, such as warranties of merchantability or fitness particular purpose, shall apply. In no event shall OAL be liable for consequential or incidental damages.

Any recommendations or suggestion relating to the use of the products made by OAL, whether in its technical literature, or response to specific enquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyer's having requisite skill and know-how in the industry, and therefore it is Buyer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results.

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Due to OAL's policy of continuous product improvement, the information contained in this Product Data/Application Instructions sheet is subject to change without notice. It is the Buyer's responsibility to check that this issue is current prior to using the product. For the most up-to-date Product Data/Application Instructions always refer to the website at www.oasisameron.com

To avoid any confusion that may arise through translation into other languages, the English version of the Product Data/Application Instructions will be the governing literature and must be referred to in case of deviations with product literature in other languages.

Condition of Sale

All our transactions are subject to our Terms and Conditions of Sale.

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