

# DECO EPOX RAL

## Coloured epoxy coating for food environments

### DESCRIPTION

Deco Epox RAL for Food Isoplam® is a coloured resin in RAL colours, two-component and water-based. It is composed of epoxy resins with high mechanical strength and excellent chemical resistance. Deco epox RAL for Food Isoplam® is used as a finish for floors and walls in cycles intended for the protection of cement, metal and multilayer resin supports.

It meets the requirements of UNI 11021 "Products and systems for painting environments in the presence of food" and complies with the requirements of the HACCP self-control system.

It is CE marked according to UNI EN 13813.

The coating has been tested according to UNI EN ISO 16000 6 "Analysis of air pollutants dispersed in the work environment", and has been validated by the CATAS accredited laboratory according to the standards of the American Conference of Governmental Industrial Hygienists (ACGIH) with reference to the TLV TWA threshold limit values for such use.

### FIELDS OF USE

Deco epox RAL for Food Isoplam® is used as a finish in cycles intended for the protection of cement and iron supports.

Given its water-based formulation, free of solvents, plasticizers and tar derivatives, its non-flammability characteristic, Deco Epox RAL for Food is suitable for painting floors intended for the processing of food products where compliance with the HACCP system is required and which therefore require easy cleaning and decontamination.

It is widely used for:

- flooring and coating of environments for food processing and storage: dairies, meat processing industries, bakeries, foodstuffs in general, canteens, kitchens, warehouses...
- flooring and coating of environments where easy cleaning is required such as bathrooms, changing rooms, gyms, swimming pools, spas, health facilities, hospitals, schools...
- flooring and coatings that require a high chemical resistance finish such as those of wine cellars, the chemical and pharmaceutical industry, the paper, textile, tanning and mechanical, galvanic and accumulator industries...
- multilayer flooring that requires high wear resistance finishing such as: production departments and warehouses of industries, logistics...

### PROPRIETIES

Deco Epox RAL for Food Isoplam® has the following characteristics:

- increases resistance to abrasion, impact, wear, etching and chemical aggressions;
- it is waterproof and easily cleanable;
- it can be customised in RAL colours;
- it has very low shrinkage;
- it can be applied at low or high thickness;
- it can have a smooth or non-slip finish;
- it has an excellent adhesion to most supports if properly prepared;
- it is also applicable vertically (added with Vertical Tixo Isoplam®);

- it does not contain solvents and is odorless, thus improving the conditions of the operator who applies it;
- it is not flammable.

Note: Contact with acidic solutions could cause the colour of the coating to change, but this is only an aesthetic factor and does not compromise the mechanical and chemical resistance characteristics.

## HOW TO USE

### **Environmental conditions**

The application temperature must be between 5°C and 30°C and the ambient relative humidity must be less than 80%. Do not apply if there is the possibility of condensation forming for as long as necessary to dry the product.

### **Support preparation**

-The support must be mature, dry (humidity <5%), compact, clean (free of oils and fats), without cracks, dust and concrete grouts. Grout any cracks or holes that may be present on the surface and dry completely.

To increase adhesion, it is recommended to roughen the support by sandblasting, sanding, sanding or washing with Plam Apripori Isoplam®.

-Metal supports must be free of oils and sanded to grade SA 2.5 or ground or scraped with a metal brush.

### **Primer**

-- On metal supports, apply Iso Zinc Primer Isocolor® and allow to dry.

- On the supports made of multilayer resin, apply a coat of Isoplam® Skyprimer seeded with 0.1-0.5 quartz or 0.3- 08 quartz grit by spatula; once dry, sand to eliminate quartz roughness and reduce the consumption of the finish, vacuum the powders and then apply Deco epox RAL for Food. Roller application is also possible: in this case an orange peel finish will be obtained.

-On the vertical cement supports, apply a coat of Skyprimer diluted with Epoxy Diluent and applied with a flat roller; proceed immediately with dusting of Quartz 0.1-0.5; after drying, sand and vacuum the excess quartz.

-On cement supports with rising humidity, apply two coats of Isoplam® Vapor Barrier chemical vapor barrier.

- On cement supports, generally apply a coat of Isoplam® Skyprimer sown with 0.1-0.5 grit quartz; once dry, sand to eliminate quartz roughness and reduce the consumption of the finish, vacuum the powders and then apply Deco epox RAL for Food. Roller application is also possible: in this case an orange peel finish will be obtained.

In any case, always consult the Isoplam Technical Department for the evaluation of the most suitable product.

### **Product preparation**

Deco epox RAL for Food Isoplam® is a two-component product: the catalysis ratios between the two components that must be dosed by weight according to the mixture ratio A+B=100+30 must be respected. Thoroughly mix the individual components A and B.

Pour component B into component A and thoroughly mix with the drill at low rpm, so as not to incorporate air, for about 3-5 minutes.

In case of vertical applications, to the mixture add Vertical Tixo Isoplam® in a percentage of 2-5% by weight of component A.

In case of partial use of the packages, the two components must be carefully dosed by weight (not by volume) in the proportions indicated on the label. Any unused mixture should never be placed in closed containers but disposed of.

### **Applicazione**

Depending on the type of support, the desired finish and the intended use of the surface, the product can be applied with a spatula, brush, roller or airless, in one or two coats according to the methods and consumption indicated below:

-on multilayer coating: apply with an American trowel in one coat (consumption 0.5-0.9 kg/m²);

-on epoxy screed: apply with an American trowel in two coats (first coat consumption 0.5 Kg/m², second coat 0.4 Kg/m²);

-as painting on cement supports in general: apply by roller one or two coats (consumption 0.2 -0.5 Kg/m<sup>2</sup> per coat) or by airless spray one or two coats (consumption 0.3-0.5 Kg/m<sup>2</sup> per coat).

Any second coat must be applied within 48 hours of applying the first coat. If more than 48 hours have elapsed since the first application, the surface must be sanded with a sandpaper disc or 120 grit mesh disc before performing the second coat of paint.

Complete hardening will take place after 7 days (at a support temperature of >10°C).

## TECHNICAL PROPRIETIES

| DESCRIPTION                                                        | VALUE                                                                                        |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Colors                                                             | Following the RAL color system                                                               |
| Mixture ratio A+B                                                  | 100 parts A + 30 parts B<br>(meaning 10:3)                                                   |
| Pot life (use time)<br>at 10°C<br>at 20°C<br>at 30°C               | 70 minutes<br>30 minutes<br>20 minutes                                                       |
| Sovraverniciabilità<br>at 10°C<br>at 20°C<br>at 30°C               | 36 hours<br>21 hours<br>12 hours                                                             |
| Tack free (fuori polvere)<br>at 10°C<br>at 20°C<br>at 30°C         | 24 hours<br>12 hours<br>8 hours                                                              |
| Density (specific weight)<br>Comp. A<br>Comp. B<br>Mixture         | 1,43±0,05 Kg/dm <sup>3</sup><br>1,02±0,05 Kg/dm <sup>3</sup><br>1,25±0,05 Kg/dm <sup>3</sup> |
| Mixture viscosity A+B                                              | 1000÷1500 cP                                                                                 |
| Adhesion on concrete                                               | Cohesive breakage of the substrate                                                           |
| Adhesion on steel (with suitable primer)                           | >2,5 N/mm <sup>2</sup>                                                                       |
| Hardness (Shore D)                                                 | >65                                                                                          |
| Water absorption (thickness 300μ)                                  | <0,1%                                                                                        |
| Scruff resistance (Taber Test with rock CS 17, 500 g, 1000 cycles) | 50 mg                                                                                        |

## RESISTENZA CHIMICA

| Exposure time (days) | 7     | 14    | 21    | 28    |
|----------------------|-------|-------|-------|-------|
| Cloridric acid 20%   | 0 - A | 0 - A | 0 - A | 0 - A |
| Sulphuric acid 50%   | 0 - A | 0 - A | 0 - A | 0 - A |
| Nitric acid 10%      | 0 - A | 0 - A | 0 - A | 0 - A |

|                      |       |           |           |           |
|----------------------|-------|-----------|-----------|-----------|
| Phosphoric acid 20%  | 1 - B | 1 - B     | 1 - B     | 1 - B     |
| Ethanoic acid 5%     | 0     | 0         | 0         | 0         |
| Lactic acid 10%      | 0     | 0         | 0         | 0         |
| Sodium hydroxide 50% | 0     | 0         | 0         | 0         |
| Ammonia 25%          | 0     | 0         | 0         | 0         |
| Diesel fuel          | 0     | 0         | 0         | 0         |
| Ethanol              | 0     | 0         | 0         | 0         |
| Ethyl acetate        | 0 - R | 0 - R     | 0 - R     | 0 - R     |
| Acetone              | 0 - R | 1 - R - A | 1 - R - A | 1 - R - A |
| Xilene               | 0     | 0         | 0         | 0         |
| Brake oil            | 3     | 3         | 3         | 3         |

*Degree of surface alteration:*

*0: no corrosion effect on the surface;  
1: surface affected;  
2: surface damaged;  
3: surface severely damaged;  
A: slight color alteration;  
B: swelling;  
R: softening.*

## CONSUMPTION

-On multilayer coating: consumption 0.5-0.9 Kg/m<sup>2</sup> for applications with American trowel in one coat.  
-On epoxy screed: first-hand consumption 0.5 Kg/m<sup>2</sup>, second-hand 0.4 Kg/m<sup>2</sup> for applications with American trowel in two coats.  
-As painting on cement supports in general: consumption 0.2-0.5 Kg/m<sup>2</sup> per coat for roller applications or consumption 0.3-0.5 Kg/m<sup>2</sup> per coat for airless spray applications.

## PACKAGING, COLOURS AND STORAGE

Deco Epox RAL per Alimenti Isoplam® è disponibile in confezioni da 13 Kg (A=10 Kg; B=3 Kg).  
Deco Epox RAL per Alimenti Isoplam® è disponibile su ordinazione nelle tinte RAL.  
In confezioni originali, sigillate e conservate in luogo protetto, i prodotti rimangono inalterati per 18 mesi se tenuti in ambiente chiuso con temperatura compresa tra 10°C e 30°C. La data di scadenza è riportata sulla confezione.

## SAFETY

Consult the safety data sheet before use. The products that make up Deco epox RAL for Food are intended for professional use only.

### IMPORTANT:

All information contained in this sheet is based on the best practical and laboratory experiences. It is the customer's responsibility to verify that the product is suitable for the intended use. The manufacturer declines all responsibility for the results of incorrect applications. It is advisable to always carry out tests on small



surfaces before application. This sheet replaces and cancels previous ones. Data can be changed at any time. We also remind you that Isoplam products are intended for professional use and that Isoplam provides for the regular training of its customers who request it. Anyone who uses these products without being qualified does so at his own risk.