

## IDEAL COLOUR 21

### Highly chemical-resistant and atoxic epoxy coatings for the food industry

#### DESCRIPTION

IDEAL COLOUR 21 is a solvent-free coloured epoxy enamel based on non-modified liquid epoxy resins catalysed with amide polymers. It is certified for occasional or continuous contact with foodstuffs.

#### CHARACTERISTICS

IDEAL COLOUR 21 is a two-component epoxy resin with good mechanical resistance and excellent chemical resistance. It is recommended to protect iron, concrete, plaster, stone and brick substrates in the chemical and tanning industries and to cover walls and floors in the food industry.

#### FIELDS OF USE

Low or high thickness tight protective coating for:

**FOOD INDUSTRY:** Floor and wall coatings; storage bins; and tanks of aqueducts, wine cellars, breweries, dairies, slaughterhouses, ham factories, fish processing industries, oil mills, foodstuff warehouses, etc. The Istituto Universitario Sperimentale Per L'Industria Delle Conserve Alimentari of Parma issued the Certificate of suitability for IDEAL COLOUR 21 for coatings in contact with foodstuffs, according to the European community legislation in force.

**CHEMICAL, PHARMACEUTICAL INDUSTRY, etc.:** Highly chemical-resistant coatings for floors, walls, tanks, water treatment plants, pipes, etc.

#### ADVANTAGES

Compared to ordinary resins, IDEAL COLOUR 21 has the following advantages:

Polyaddition curing does not form secondary products. Limited shrinkage.

Number of possible applications due to high thickness.

Low toxicity during application due to absence of volatile solvents.

Excellent adhesion to most substrates when properly prepared.

Smooth or "orange peel" finishing. The applied layer is completely tight.

Good mechanical resistance to wear.

Excellent chemical resistance to most acidic and basic chemical reagents.

Fast curing: rooms can be used approximately 48 hours after application.

It is possible to restore within 48 hours.

Excellent quality-price ratio.

#### SUBSTRATE PREPARATION

The substrates must be compact, without cracks, clean, dry and free from crumbling portions and cement grout. To achieve good adhesion, substrates must be sandblasted and iron must be sandblasted. Very porous surfaces or those with craters and hat-shaped holes (as concrete where the form has been removed) must be previously puttied with IDEAL STUCK, an epoxy adhesive. The substrate must be dry and its humidity must not exceed 5% (apply to concrete only after full curing). As primer apply 1 coat of IDEAL COLOR 51 diluted 10-15% with water.

Concrete substrates exposed to capillary pressure due to humidity rising up to

the surface must be treated with BARRIERA CEM (vapour barrier).

## APPLICATIONS

Put component "B" into component "A" and mix with a stirrer for 3-5 minutes at a low speed in order to prevent air from entering. Carefully remove the material on the walls and in the corners of the bucket. Apply two coats by brush, roller or airless sprayer, covering on average 200g/m<sup>2</sup> per coat.

### Application on industrial floors:

#### 1° coat (primer)

Mix A+B and add 10% of ethyl alcohol.

Consumption 150-200g/m<sup>2</sup>

#### 2° coat

Mix A+B and add 5% of ethyl alcohol.

Consumption 400-450g/m<sup>2</sup>

If an anti-slip finish is preferred, add 5% of quartz (size 0.1 - 0.6) to the mix.

## TECHNICAL INFORMATION

After mixing components, the product starts curing and must be applied within the following time schedule depending on room temperature:

at +10°C within approx. 120 minutes

at +30°C within approx. 20 minutes

Drying time, touch dry and possibility to paint over:

at +10°C 10 hours 15 hours

at +20°C 8 hours 12 hours

at +30°C 6 hours 8 hours

Application is not recommended in temperatures lower than +5°C and higher than +30°C

Curing is complete within 7 days at temperatures not lower than 10 °C

## TECHNICAL INFORMATION

|  |                            |
|--|----------------------------|
| Mixture density  | 1.25-1.35 g/m <sup>2</sup> |
| Vapour permeability (300 micron thickness)                                       | < 3g/m <sup>2</sup> / 24h  |
| Water absorption (300 micron thickness)  | < 0.1 %                    |
| Carbon dioxide permeability (300 micron thickness)                               | > 350m                     |
| Fire resistance category, fire prevention SW 1                                   | SE 5                       |
| Tear strength  | > 2.5 N/mm <sup>2</sup>    |
| Hardness (Persoz)  | 230 sec.                   |
| Depth (Erichsen)   | 3-4mm                      |
| Impact resistance (1kg diam. 20mm)   | 20cm x kg                  |
| Abrasion resistance (Taber-Abraser: stone CS 17, weight 500g, after 1000 cycles) | 50mg                       |

## CHEMICAL RESISTANCE

| Exposure in days             | 7 | 30 | 60 | 120 |
|------------------------------|---|----|----|-----|
| Deionised water              | + | +  | +  | +   |
| Sodium chloride at 20%       | + | +  | +  | +   |
| Hydrochloric acid 20%        | + | +  | +  | +   |
| Sulphuric acid 50%           | + | +  | +  | +   |
| Nitric acid 10%              | + | +  | +  | +   |
| Phosphoric acid 20%          | + | +  | +  | 0   |
| Acetic acid 5%               | + | +  | +  | 0   |
| Lactic acid 10%              | + | +  | 0  | 0   |
| Caustic soda 50%             | + | +  | +  | +   |
| Ammonia 25%                  | + | +  | +  | +   |
| Wine                         | + | +  | +  | +   |
| Milk                         | + | +  | +  | +   |
| Whisky                       | + | +  | 0  | 0   |
| Vegetable oils               | + | +  | +  | +   |
| Mineral oils                 | + | +  | +  | +   |
| Brake oil                    | 0 | 0  | -  | -   |
| Oil, gas oil                 | + | +  | +  | +   |
| Gasoline                     | + | +  | +  | +   |
| Ethyl alcohol 10%            | + | +  | +  | +   |
| Methyl alcohol               | 0 | 0  | -  | -   |
| Ethyl acetate                | 0 | -  | -  | -   |
| Acetone                      | 0 | -  | -  | -   |
| Benzol, Toluol               | + | +  | +  | +   |
| Industrial waste waters      | + | +  | +  | +   |
| Tanning waste waters         | + | +  | +  | +   |
| Water treatment waste waters | + | +  | +  | +   |

+ = no corrosion    0 = light degradation    - = high degradation

### Cleaning tools

Water cannot be used to clean tools. Use solvents such as toluol, alcohol, etc.

## PACKAGING AND STORAGE

5-0kg buckets (A+B)

In its original packaging, sealed and stored in a safe place, this product remains unchanged for at least 12 months at temperatures between +10°C and +30°C.

## WARNINGS

Epoxy resins and hardeners can cause irritation. Avoid skin contact and spraying into eyes. Wear glasses, gloves and a working suit. Use a protective cream such as Turexan and a nutrient cream after work. In case of contamination, rinse immediately with water and soap. In case of splashes in the eyes, wash with water and call a doctor. Do not use the empty containers to store other substances.

### IMPORTANT:

All the information contained in this sheet is based on the best practical and laboratory applications. It is the customer's responsibility to check the product is suitable for the intended use. The manufacturer declines any responsibility for wrong application. It is recommended to carry out tests on small areas before application. This sheet replaces and cancels any previous one. The data contained can be changed at any time. Ideal Work products are for professional use and the company organises periodical training for its customers on demand. Anyone who uses these products without qualification takes all the associated risks.

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