# PEKAY N769 EPOXY PAINT

## DESCRIPTION

Pekay N769 epoxy paint is recommended for high chemical and impact resistant systems. This coating will withstand water immersion, humidity, acid and alkaline atmospheres, as well as spillage of a variety of commonly used acids and alkalis. It is suitable for hard wearing traffic on floors such as in workshops and factories.

Maximum resistance to chemical activity is attained only after the film has cured for a period of 7 days at a temperature of 25$^{o}$C and over. N 769 is ideal for use on steel surfaces, and it may also serve as a protective coating for suitably treated galvanised steel, aluminium and timber. It is also particularly suitable for coating industrial concrete floors, to give an attractive finish and a hard – wearing surface.

## PREPARATION AND APPLICATION

**STEEL & METAL:**

Shot-blast the steel surface to between Swedish Standard SA2 and SA2½. Better quality blasting is not necessary and wastes paint in the deeper shot anchor pattern. For the same reason, the blasting hose should be held at an angle rather than normal to the surface being blasted. Anchor pattern is significantly affected by shot particle shape, which can be monitored by screening. Cleanliness is essential. Airlines should have water and oil traps.

**CONCRETE:**

Thoroughly clean the surface prior to priming. Old concrete may need to be mechanically scabbled and patched. It is best to Acid Wash using a 5:1 mixture of water and Hydrochloric Pool Acid. After all foaming has subsided, scrub well with a wet nylon brush, and then rinse off well with water. Allow to dry for 24 hours. Prime with Pekay G 317 two part Epoxy primer and allow to dry until tacky ( approx 20 – 40 mins ) before continuing.

Pekay N769 epoxy paint is composed of Part A - 4lt packed in a 5lt tin and Part B - 1lt curing agent packed in a separate container. The two components must be mixed in the ratio 4:1. Mixing should be lengthy and thorough. Apply with brush, roller or airless spray. Roller application, especially towards the end of pot life when the paint is tacky, can result in entrapment of roller hair in the coatings, with resultant Holliday test failures. It is therefore best to use sponge and enamel - rather than wool rollers and to sandpaper each coat lightly before the application of subsequent coats.

## DRY FILM THICKNESS

For a successful system, up to 4 coats of Pekay N769 should be used to give a dry film thickness of 200 - 250 microns. However, the following factors should be considered:

To allow solvent to escape satisfactorily, the dry film thickness must be kept below 100 microns before over-coating.

Because of solvent retention, inter-coat adhesion tends to rise to a maximum and then to reduce after the dry film thickness reaches a certain value.

To avoid Holliday test failures resulting from pinholes, it is necessary to adopt a multi-coat system.

The thicker the individual coats the greater the tendency for the materials to run and sag. However, when further coats are applied, the danger of inter-coat delamination increases, which is the prime cause of failure of epoxy coatings.

At 250 microns dry thickness, 1lt of Pekay N769 will cover approximately 2 - 2,5 square metres.

## MIXING AND OVER-COATING

Two of the major causes of problems in applying epoxy paints are:

Insufficient mixing of contents of twin pack containers.
Insufficient attention to over-coating times.

Improper mixing results in incorrect proportion of curing agent to epoxy resin throughout the mixture. When there is too much curing agent, severe alligatoring of the cured film can be expected. When there is too little curing agent, the cured film will show heavy chalking. The patchiness of the combination will depend on how well or badly the ingredients were mixed. Alligatories will lead to exposure of the substrate and chalking will result in poor inter-coat adhesion.

Over-coating times are critical, since if over-coating is done too soon, solvent will be trapped in the earlier coat, and if done too late, there is the possibility of bloom or chalking on the nearly cured surface of the coating, and loss of inter-coat adhesion. Inter-coat adhesion relies largely on the bond developed in the tar, which decreases as the coating cures.

In view of the above, over-coating should be done within the period 20 - 30 hours after application of the previous coat. Before 20 hours, solvent entrapment is likely to occur and after 48 hours, delamination may occur.

When repainting old epoxy coatings, the original coating should be lightly shot-blasted, sanded or solvent wiped before the application of the new coat.

## SPECIFICATIONS

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| TYPE | Solvent - type epoxy paint for high chemical resistance |
| VOLATILE MATTER | Approx 40% w/w |
| CURING AGENT | Pekay N769 part B |
| MIXING PROPORTIONS | Base - 4 parts<br>Curing agent - 1 part |
| POT LIFE | 6 hours minimum |
| APPLICATION | Brush, roller, spray |
| SOLVENT / CLEANUP | Pekay C412 solvent |
| DRYING TIME | Surface dry - 5 hours<br>Hard dry - 48 hours |
| RECOATABILITY | 20 - 30 hours |
| PACKING | Part A: 4lt in a 5lt tin<br>Part B: 1lt in a 1lt tin |

## LIMITATIONS

White epoxy coating may tend to discolor if painted on to permanently shaded surfaces. Epoxy coatings have a tendency to chalk when permanently exposed outdoors.

FLAMMABLE MATERIALS: DO NOT USE NEAR OPEN FLAME, DO NOT SMOKE DURING USE.

Ensure adequate ventilation during use.