

ATYS-PC-704

Heavy Duty Coating for Steel and Concrete

Description	Resistant 2-pack reaction hardening coating of low solvent content based on a epoxy-tar-oil-combination with mineral fillers.
Uses	For concrete and steel, as internal and external coating for buried and submerged structures, e.g. sewerage systems, chemical industry etc. Also suitable, if an application onto damp surfaces (steel and concrete) is inevitable. Not suitable for surfaces in contact with drinking water, housing, stables etc.
Properties	After complete curing, ATYS-PC-704 is tough hard, robust, abrasion and impact resistant; excellent resistance to water, microbes and chemicals. ATYS-PC-704 can be exposed to water immediately after application, taking into consideration that thus solvents get into the water which leads to temporary contamination. Not resistant to mechanical exposure (waves) whilst still soft. Immediate exposure to water should therefore only be considered in special cases and after consulting the authorities for the protection of environment.
Packaging	35 kg units (A+B)
Shelf Life	In original sealed containers in dry and cool environment min. 1 year.
Coating System	<u>Steel:</u> 2 -3 x ATYS-PC-704; preferably alternating color shades. For heavy mechanical exposure priming with Zinc Primer R is recommended. <u>Concrete:</u> 2- 3 x ATYS-PC-704 1st coat to be thinned with max. 5% by weight Thinner S. 2nd coat untinned.

Material Consumption

	Specific Gravity Liquid	Solid Content Approx. %		Theoretical layer thickness with a consumption of 100 g/m ²		Theoretical material consumption for medium dry film thickness of	
		Approx. kg/l	By volume	By weight	Microns	Microns	Microns
ATYS-PC-704	1.8	87	96	56	49	150	0.310
Zinc Primer R	2.8	67	90	36	24	60 80*	0.250 0.340

* When spraying

Apart from small areas the dry film thickness of Zinc Primer R should not exceed 150 microns per layer.

A: B=85:15 (W/W)

Mixing Ratio Resistance

Chemical influences:

ATYS-PC-704 is resistant to water, seawater, barnacles, diluted acids and lyes, neutral salts, mineral and fatty oils, detergents etc.

Not resistant to longer exposure to benzene-hydrocarbons and tar oil.

Temperature:

Dry heat up to approx. + 100°C, damp heat and hot water up to approx. + 60°C, short time exposure up to approx. + 80°C; not resistant to hot water exposure in case of significant differential of temperature gradient.

Application

Surface Preparation:

Concrete:

Dry, solid and gripping, free of laitance, dust, loose and friable particles and other contamination. Sweep blasting increases adhesion. This is particularly important in case of underwater exposure. Large holes, holidays and cavities etc. should be leveled up with ATYS-PC-703.

Steel:

Blast cleaning

Free of dirt, oil, fat etc.

Preparation of Material:

Stir part A (base component) thoroughly, add part B (hardener) and mix thoroughly with an electric stirrer (with up and down movements).

In case of crystallization of part B (hardener) liquify same in a warm water bath to + 40° - + 50°C and let it cool down to a normal temperature before mixing with part A (base component).

Application Methods:

The method of application has got a major effect on achieving uniform thickness and appearance. Spray application will usually give the best results. The indicated dry-film thickness is easily achieved by airless spray and usually also achievable by brush. Adding solvents reduces the sag resistance and the dry-film thickness. In case of application by roller, sometimes also by brush, additional applications may become necessary to achieve the required coating thickness, depending on type of construction, site conditions, color shade etc. Before starting major coating operations, it may be useful to check with a test application on site whether the selected application method with the specified product will provide the requested results.

By brush or roller:

No solvents should be added, as they would delay curing, especially under water.

Airless-Spray application:

Spray pressure in gun min. 150 bar, diameter of hose min. 8 mm, nozzle bore 0,53 - 0,66 mm, spray angle 40 -80°.

At low temperatures max. 5% by weight Thinner S may be added, but an immediate exposure to water is then not possible.

Application Temperature: Minimum + 5°C

Pot Life: At + 20°C approx. 1½ h.

Waiting time between coats up to 150 µm dry film thickness:

product	Waiting time	+ 5°C after	+ 10°C after	+ 15°C after	+ 20°C after	+ 25°C after	+ 30°C after
Epoxy Coaltar F	Min.	36h	30h	24h	12h	8h	6h
	Max.	96h	72h	60h	48h	36h	24h

If these maximum waiting times cannot be observed, inter-coat adhesion problems must be expected and activation will have to be carried out. The best method of activation is sweep blasting or grinding, followed by thorough dedusting prior to application of the next coat.

Zinc Primer R and ATYS-PC-704: 24 h at 20°C (see technical data sheet).

Final Drying Time

At + 20°C and good ventilation final curing is achieved after approx. 8-10 days.

Curing also takes place at lower temperatures – below + 10°C – but it takes longer (also under water curing). Curing also takes place under water.

Cleaning of Implements

Thinner S; only thin material where stated.

Precautionary Measures

Both components of Inertol - Poxitar fall under the dangerous goods regulations (part A = class 8, part B = part 3,3).

Observe safety advice printed on label.

In a liquid state the product as well as the thinner contaminate water and should not get into drains, water and soil.

In any case remnants of thinner and material must be removed according to regulations.

During application in closed rooms, pits and shafts etc. sufficient ventilation must be provided. Keep away open light including welding.

In badly lit rooms only electric safety lamps are permitted. The installed ventilation equipment must be spark-proof.