

TEMASIL 90**APPLICATION INSTRUCTIONS**

- ◆ Zinc silicate paint is used on steel surfaces exposed to heavy mechanical abrasion, atmospheric stress or solvents. Without topcoat it is used, e.g. for ramps and car-decks at car ferries and inside surfaces of solvent tanks. Zinc silicate paint is used as a primer in paint systems with great demands on a long time protection in severe atmospheric environment, e.g. hatch covers on ships and other steel surfaces which are difficult to maintain.
- ◆ A successful use of zinc silicate paint makes heavy demands on the application work.

Paint system

ISO-12944-5/S4.24-ES180/1-FeSa2½
 TEMASIL 90 80 µm
 80 µm

Nominal film thickness 80 µm, min. 70 µm and max. 100 µm, applied in one single coat.

Preliminary cleaning

Remove impurities, which impedes the cleaning from the surfaces. Salts, grease and oil should be removed with a suitable alkaline detergent. Wash the surfaces with fresh water and allow to dry. (ISO 12944-4).

Surface preparation

Remove rust by abrasive blasting to Sa2½ - 3 (SFS-ISO 8501-1). If the steel material has been blasted earlier and treated with shop-primer the shop-primer should be removed by blasting. Zinc silicate shop-primer surfaces should be reblasted all over, the degree of remaining shop-primer allowed depends on the object. Surface roughness medium, G (ISO 8503).

Application conditions

The application should be done in clean and proper spaces without welding, other exhaust gases or dust. The surface must be clean and dry. The temperature of the ambient air or surface should not fall below - 15 °C during application and drying. The surface temperature of the substrate shall remain at least 3 °C above the dew point and the relative humidity should be between 50 - 90 %. The temperature of the paint should be at least +15 °C.

Application

By airless spray or brush. The ethylsilicate solution should be thoroughly stirred before use. Add the silicate solution into the zinc paste under continual stirring. The stirring should continue until the mixture is smooth. Continuous stirring during the application is recommended.

Airless spray nozzle tip 0,018 A - 0,023", spray angle shall be chosen according to the shape of the object.

Reinforce painting

Sharp edges, corners, welding seams and other areas difficult to cover properly by spray application should be coated by brush or roller in connection with the spray application. Reinforce painting and eventual touch-up painting should be done within 1 - 1½ h.

Additional actions

If there is no intention to apply a topcoat, e.g. ramps, car decks etc. no further steps have to be done, the coat will cure by and by. If the zinc silicate paint shall be overcoated, please, consider the facts mentioned at overleaf, finish.

To avoid contamination of the porous zinc silicate coat the next coat should be applied as soon as possible.

TEMASIL 90**APPLICATION INSTRUCTIONS****Finish**

Before further painting ensure that the silicate coat is completely cured.

Curing and recoating times are related to the temperature and relative humidity of the air.

Guide-line values in the table below.

DFT 80 µm	+ 10 °C	+ 23 °C	+ 35 °C
Touch dry	1 h	½ h	15 min
Recoatible, RH 85 %	36 h	5 h	2 h

In dry indoor spaces the curing can be fastened by moistening the painted surface and taking care of that the moisture remains during the curing process of the zinc silicate.

Before overcoating you have to ensure that the coat is fully cured. This can be done by rubbing the surface with a cloth moistened in thinner 1029. The zinc silicate coat may not dissolve by this. (Place for the test, some interior corner or equal).

Topcoat systems

Alternative 1. Acrylic.
TEMACRYL AR SEALER
TEMACRYL AR 50

Alternative 2. Epoxy.
TEMACOAT SEALER
TEMACOAT GS 50.

Alternative 3. Silicone
TEMAL 600/TEMAL 400

Touch up

If the silicate coat is damaged due to transport, installation, additional welding works etc. and it is impossible to blast clean the damaged areas have to be cleaned thoroughly by power tools and touch-up painted with zinc rich epoxy paint, TEMAZINC 99.

N.B

The film thicknesses and the number of coats may vary depending on actual contract. Above mentioned thickness, 80 µm (NDFT), is in accordance with the new ISO 12944 standard. In older specifications thicknesses about 70 - 75 µm have been specified.

	Paint	NDFT
1.	TEMASIL 90	80 µm
2.		
3.		
4.		

Project