MC-SP-1 Inorganic Zinc ethyl silicate shopprimer

Product description

MC-SP-1 is a two-component shopprimer consisting of zinc dust, ethyl silicate, and selected additives, as required. Offers cathodic protection to local mechanical damage. Dry quickly and can be stacked and transported in relatively short period after coating. Has no affect to gas cutting property and weldubility in the specified film thickness.

Recommended use

As shopprimer for ship, offshore steel structure, storage tank, bridge etc.

Recommended film thickness and spreading rate

Film thickness，dry(μm)	2 0～40
Film thickness，wet(μm)	62.5～125
Theoretical spreading rate，m^2/l	16　　8

Basic characteristics

Color	grey
Volume Solids，%	32± 2
Flash Point，℃	15± 2
Density (mix), g/ml	1.40±0.05
VOC，g/l	570± 10
Abrasion resistance	Good
Solvent resistance	Good

Surface preparation

Bare steel:

Roughness: using abrasives suitable to achieve medium grade (ISO 8503-2).

Cleanliness: blast cleaning to min. Sa 2 ½ (ISO 8501-1)

Condition during application

The temperature of the substrate should be at least 3℃ above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Minimum temperature for curing is 0℃. Minimum relative humidity: 50%, preferably above 65%.

Application methods

Spray: airless spray or air spray

Brush: recommended for precoating or small area coating only, multiple coats may be required to achieve the specified film thickness.

Application data

Mixing	agitate component A and component B respectively, and then mixed thoroughly
Mixing ratio（weight）	A:B=1:2
Pot life（23℃）	6 hours (Reduced at higher temperature)
Thinner/Cleaner	MC-SX-1

Recommended airless spray parameters

Usage of thinner	0～5%（weight）
Pressure at nozzle	8～15 MPa（about 80～150 kg/cm^2）.
Nozzle tip	0.38～0.53 mm.

Spray angle	40～80°
Filter	Check to ensure that filters are clean.

Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

Good ventilation (Outdoor exposure or free circulation of air)

Typical film thickness

One coat on top of inert substrate

Substrate temperature，°C	5	15	23	40
Surface dry，min	20	15	5	1~2
Through dry，h	4	2	1	0.5

Typical paint system

Inorganic zinc ethyl silicate shopprimer 25μm

The substrate with undamaged shopprimer can be coated with compatible anti-corrosive coatings after sweep blasting.

The substrate with damaged shopprimer should be coated with epoxy zinc rich primer, inorganic zinc ethyl silicate primer or epoxy primer after abrasive blasting to Sa 2½.

Other systems may be formulated, depending on specific condition.

Note

This product must be used within the pot life. The mixture should be stirred constantly until application was completed. The product should be applied in a uniform film thickness. Avoid dry spray and overthickness

The primer will cure thoroughly within 24 hours at 23℃ and 75% relative humidity. After 4 hours curing, water mist can be sprayed on the surface to keep the film surface moisture and accelerate the curing process. If the surface is exposed outside for long period, the shopprimer must be abrasive blasted to ensure the adhesion of subsequent coat.

Storage

Storage conditions are to keep the containers in a cool, dry, well ventilated space and away from source of heat and ignition.

Containers must be kept tightly closed.

Handling

Handle with care.

Packing size

Component A in an 18 litre container and component B in a 4 litre container, or negotiation.

Health and safety

Before and during use of this product, please observe the precautionary notices displayed on the container. Be careful to avoid inhalation and skin contact of paint. Spillage of paint on the skin should immediately be removed with a suitable cleanser, soap and water. Avoid using organic solvent. Eyes should be well flushed with water and then seek medical attention immediately. The product should be used under well-ventilated condition. If using in stagnant condition and narrow place, forced ventilation must be provided, and applicators should take corresponding measures to strengthen personnel protection.