MC-ST-1 Polysiloxane topcoat

Product description

MC-ST-1 is a high-build two-component topcoat comprised with modified polysiloxane resin, weather resistance pigment, etc.. The cured film exhibits excellent resistance to chemicals and super weatherability which is the first choice of long term durable topcoat in marine steel structure.

Recommended use

As a topcoat suitable for substrate which is primed, especially suitable for steel structural under aggressive marine atmospheric exposure, particularly suitable for the area with the prohibition of use of isocyanate or limitation of solvent emissions.

Recommended film thickness and spreading rate

Film thickness，dry(μm)	30～75
Film thickness，wet(μm)	37.5～93.7
Theoretical spreading rate，m^2/l	26.7～10.7

Basic characteristics

Color	Various color
Volume Solids，%	80± 2（white）
Flash Point，℃	37 ± 2
Density (mix), g/ml	1.35±0.05
VOC，g/l	246 ± 10
Gloss	Glossy
Gloss retention	Excellent
Water resistance	Good
Abrasion resistance	Very good
Chemical resistance	Good

Surface preparation

Coated surfaces:

Clean, dry and undamaged compatible primer.

Damage areas should be blasted to $Sa2\,1/2$ or power tool cleaning to the standard St3, and primed.

Other surfaces:

The topcoat can be used on other substrates. Please contact our company for more information.

Condition during application

The temperature of the substrate should be at least 3℃ above the dew point of the air. The maximum relative humidity does not exceed 85%. Avoid application in rainy or wet weather. Good ventilation is usually required in confined areas to ensure proper drying.

Application methods

Spray: use airless spray or air spray

Application data

Mixing Agitate component A and component B respectively, and then mixed thoroughly

Mixing ratio（weight） A:B=10:1

Pot life（23℃）	2 hours (Reduced at higher temperature)
Thinner/Cleaner	MC-AX-1
Recommended airless spray parameters	
Usage of thinner	0～5%（weight）
Pressure at nozzle	15～20 MPa
Nozzle tip	0.28～0.43 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，℃	5	10	23	40
Surface dry，h	6	4.5	3	1.5
Through dry，h	36	24	10	4
Cured，d	10	7	5	2
Dry to recoat, minimum，h	36	24	10	4

The surface must be free from any chalking or any other contamination and if necessary, sufficiently roughened prior to application.

The given data must be considered as guidelines only. The actual drying time/ recoat interval may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. .

Typical paint system

Inorganic zinc-rich primer	75 μm
Polysiloxane topcoat	2×50 μm

Other systems may be formulated, depending on specific condition.

Note

It is suggested that the product must be coated under the relative humidity between 40% and 85%, and can't be used in immersion.

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.

For detailed information on the health and safety and precautions for use of this product, please consult our company.