

Marine Paint Manual

Issue date : March 2012
TDS Identification No. : 01-01

NIPPE CERAMO (Worldwide Brand : NIPPON CERAMO)

【 Product Description 】

A pure inorganic long-exposure shop primer that is super heat resistant (up to 800°C) and offers excellent welding properties, and resistance to zinc salt formation caused by weathering. Its excellent heat resistance reduces such areas burnt by welding, cutting or fairing and need repairing. It is also designed to minimize the generation of zinc fume comparing with typical zinc silicate shop primers. NIPPE CERAMO contributes for productivity, efficiency and shorter construction lead time together with improved working environments.

【 Suitable Use 】

Shop (pre-fabrication) primer for the protection of steel plate with super heat-resistant long exposure property. The coating is fully compliant with IMO Performance Standard for Protective Coatings.

【 Product Data 】

Type	Zinc dust / Heat-resistant anticorrosive pigment / Heat resistant silicate			
Color	Gray IT, Brown IT, Green IT, Dark Gray IT, Olive IT, Blue IT, Gray IT-S, Green IT-S , Brown ITH, Gray ITH, Blue ITH, Olive ITH, Green ITH			
Gloss	Flat			
Volume Solids	32.5 ± 2 % (ISO3233:1998)			
Typical Film Thickness	Dry : 13 µm Wet : 40 µm			
Min. DFT	Min. DFT 8 µm			
Max. DFT	Max. DFT 30 µm			
Theoretical Coverage	0.052 kg / m ² 0.040 L / m ² (at DFT 13 µm)			
Mixing Ratio by Weight	BINDER 43 / PASTE 57			
Specific Gravity	BINDER : 0.83 ~ 0.93 PASTE : 2.00 ~ 2.20 Mixed paint : 1.26 ~ 1.38			
Flash Point	BINDER : 11 °C, PASTE IT series : 7 °C, PASTE IT-S series : 23 °C PASTE ITH series : 7 °C			
Application Method	Airless Spray Brush / Roller For touching up small areas			
Drying Time	Surface Dry	5 minutes (5°C)	2 minutes (20°C)	1 minute (30°C)
	Dry Hard	10 minutes (5°C)	5 minutes (20°C)	3 minutes (30°C)
Interval before Overcoating (by self)	Min.	10 days (5°C)	7 days (20°C)	5 days (30°C)
	Max.	— (5°C)	— (20°C)	— (30°C)
Pot Life After Mixing		32 hours (5°C)	24 hours (20°C)	16 hours (30°C)

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【 Surface Preparation 】

Surface Cleaning

All surfaces to be coated should be clean, dry and free from contamination. Remove all oil / grease, soluble contaminants and other foreign matters.

Water soluble salts limit equivalent to NaCl : $\leq 50 \text{ mg / m}^2$ of sodium chloride

Dust quantity rating "1" for dust size class "3", "4" or "5". Lower dust size classes to be removed if visible on the surface to be coated without magnification. (ISO8502-3:1993)

Primary Surface Preparation

All surfaces to be coated must be blasted to Sa 2 1/2 (ISO8501-1:2007) and over blasting profile of 30 - 75 μm (ISO8503-1/2:1988).

Under following ambient condition, blast cleaning must not be carried out.

- (1) Relative humidity : exceeding 85 %
- (2) Steel temperature : At least +3 °C above dew point

【 Application 】

Mixing

Material is supplied in two components as a unit. Mix a complete unit in the proportions supplied. Once the units has been mixed it must be used within the specified pot life.

- (1) Agitate PASTE with a power agitator.
- (2) Combine BINDER with PASTE and stir up.

As this paint is apt to precipitate after mixing, stir continuously while painting.

Thinner

Use NIPPE CERAMO THINNER (NIPPON MARINE THINNER 900 series or the others approved by NPMC) with thinning ratio of 0 ~ 25 % by weight. Depending on season or temperature of steel plate, change the thinners when necessary.

For selecting proper thinner for application, consult your NIPPON PAINT representative.

Airless spray

Airless conditions (These can be adjusted depending on coating facilities.)

Tip range : 0.48 ~ 0.79 mm
(ex. GRACO 719 - 731, 817 - 831, 917 - 931)
Output pressure : 50 ~ 100 kg / cm²

Brush / Roller

Application by brush / roller is recommended only for small areas to be repaired.

Ventilation / Heating

It is recommended to keep ventilating till dry hard (Refer to product data). Ventilation / heating shall be required during the coating application and curing to remove residue of solvents and promote suitable environment for curing.

Cleaner

Use NIPPE CERAMO THINNER (NIPPON MARINE THINNER 900 series).

Clean up

Do not allow paint to remain in spray equipment. When an application of spraying is completed or discontinued over the pot life, drain immediately the remaining material in equipment. Clean all equipments with NIPPE CERAMO THINNER (NIPPON MARINE THINNER 900 series).

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【 Ambient Condition for Application 】

Ambient condition Ambient temperature must be between 1 °C and 40 °C during application.
Relative humidity must not exceed 85%

Steel temperature { Min : at least +3°C above dew point.
Max : 50°C

【 Unit Size 】

(Standard)	NIPPE CERAMO	BINDER	7.74 kg	
		PASTE	10.26 kg	
			18 kg	(set)
(For export)	NIPPE CERAMO THINNER		16 L	
		NIPPON CERAMO	BINDER	
		PASTE	5.8 L	16 L (set)
	NIPPON MARINE THINNER 900 series		16 L	

【 Shelf Life 】

BINDER : 6 months under 25°C
PASTE : 6 months under 25°C

【 ID code 】

Gray IT PASTE : AKA050
Brown IT PASTE : AKA217
Green IT PASTE : AKA545
Dark Gray IT PASTE : AKA040
Olive IT PASTE : AKA550
Blue IT PASTE : AKA711
Gray IT-S PASTE : AKA050S
Green IT-S PASTE : AKA545S
Brown ITH PASTE : AKA217H
Gray ITH PASTE : AKA050H
Blue ITH PASTE : AKA711H
Olive ITH PASTE : AKA550H
Green ITH PASTE : AKA545H

BINDER S : AKA001
BINDER KS : AKA001
BINDER HS : AKA001
BINDER W : AKA001
BINDER KW : AKA001
BINDER HW : AKA001

【 Safety 】

Take precautions to avoid skin and eye contact (i.e. gloves, goggles, face masks, barrier creams etc.)
Proper ventilation and protective measures must be provided during applications and drying period to keep solvent vapor concentrations within safe limits.
Prior to use, obtain, consult and follow the MSDS of this product concerning health and safety information.

<Note>

- 1) The information contained in this sheet is liable to modification from time to time in the light of experience.
- 2) Store the paints in paint store.