



NATIONAL ZINC SILICATE
PROTECTIVE COATINGS

TECHNICAL DATA SHEET

NATIONAL ZINC SILICATE

PRODUCT DESCRIPTION	A two pack moisture curing inorganic zinc silicate coating, suitable as a system primer in various paint systems based on unsaponifiable binder. It has excellent corrosion resistance and good solvent resistance. It can withstand up to 600°C substrate temperature under normal atmospheric exposure conditions. It has good impact and abrasion resistances.
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RECOMMENDED USES	Solvent tank lining. High temperature stacks, boilers etc. Exterior equipments in petroleum and chemical plants.
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TECHNICAL DATA

COLOUR, DRY FILM	Grey
FINISH, DRY FILM	Smooth / Matt
VOLUME SOLIDS (ASTM D2697)	60 ± 2%
SPECIFIC GRAVITY	2.30 ± 0.05
THEORETICAL SPREADING RANGE	10 – 6 M ² /LTR
RECOMMENDED DFT RANGE (DRY FILM THICKNESS)	60 – 100 Microns/Coat
RECOMMENDED WFT RANGE (WET FILM THICKNESS)	100 – 170 Microns/Coat
FLASH POINT	15°C
FLEXIBILITY	Limited
SOLVENT RESISTANCE	Good
ABRASION RESISTANCE	Good
CORROSION RESISTANCE	Excellent

DRYING TIME

Drying time @ 30°C (Temperature, humidity, air movement, film thickness and number of coats all affect the drying time.)	
TOUCH DRY	30 minutes
DRY TO RECOAT / OVERCOAT	8 – 12 hours (minimum) – for maximum recoating interval, refer to our Technical service division
FULLY CURED	7 days



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ADVANTAGES

NATIONAL ZINC SILICATE	Two pack moisture curing system. Provides excellent resistance to mechanical damage and to corrosion. It also gives cathodic protection to steel, withstands high surface temperatures, good solvent resistance.
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APPLICATION INSTRUCTION

SURFACE PREPARATION	For steel: Oil and grease should be removed by solvent cleaning. Abrasive blast cleaning to min. Sa2.5 is recommended for better anchoring. National Zinc Silicate Primer is to be applied immediately after the steel is blasted. When over coating, the air, present in pores of primer coat will escape through the new coat of paint and may cause blister or pinholes (popping) in the topcoat just after application. To avoid this, a mist coat / full coat technique is recommended. First apply a thin coat followed by a full coat of paint after a few minutes.
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APPLICATION DATA

APPLICATION METHOD	Airless Spray	Conventional Spray	Brush
CLEANING/THINNING	National Zinc Silicate Thinner		
THINNER (VOLUME)	5 – 10%	10 – 15%	10%
CONV. SPRAY REQUIREMENTS	Atomizing Pressure : 50 psi		
AIRLESS SPRAY REQUIREMENTS	Pressure: 2200 psi		
NOZZLE SIZE	0.020” – 0.024”		
MIXING RATIO (BY VOLUME)	Base : Hardener 60:40 (Mix thoroughly, filler through 40-50 mesh before use)		
POT LIFE @ 30°C (100 ml)	9 hours (reduced at higher temperature) Note: Material may gel at elevated temperature.		

SYSTEM

RECOMMENDED SYSTEM To be applied on prepared surface. The temperature of the substrate should be minimum 3°C above the dew point of the air. Adequate moisture should be provided in the film to complete curing.	No. of Coats x DFT (Microns)	
	National Zinc Silicate	: 1 x 75
	National Guard Undercoat H.B.	: 1 x 125
	National Guard Topcoat	: 1 x 50



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ADDITIONAL DATA

SHELF LIFE @ 30°C	6 months, in original sealed container, with proper storage conditions.
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HEALTH & SAFETY

SAFETY PRECAUTIONS	<p>As a general rule, avoid skin and eye contact by wearing overalls, gloves, goggles, and airmask etc. Spillage on skin should immediately be removed by thorough washing with water and soap or suitable cleaner. Eye should be flushed with fresh water. Avoid inhalation of vapours and paint mist by wearing suitable airmask. In the event of ingestion and eye contact, seek medical attention immediately. Painting must be carried out in well-ventilated area.</p> <p>This as industrial product contains flammable materials and should be kept away from the sparks and open flames, smoking in the area should not be permitted. Local safety regulations should be followed.</p>
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STORAGE & HANDLING

STORAGE	<p>Store the paint in proper storage conditions as per the local regulations. Keep the paint container in sealed condition under shed, away from direct sunlight and extreme temperatures. Do not stock paint material near to any ignition sources. Do not put back the half or unused material back in original container, containing the supplied paint, to avoid contamination. Handle with care. Stir well before use.</p>
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NOTE: We warranty only the quality of our product and this data sheet is based on results obtained from experience and tests. We reserve the right to change data without prior notice. For surface preparation, safety details refer specifier and safety data.

This data sheet supersedes all previous issued.
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