



NATIONAL DEFENDEM (WEATHER SHIELD EXTERIOR)
DECORATIVE COATINGS

TECHNICAL DATA SHEET

NATIONAL DEFENDEM (WEATHER SHIELD EXTERIOR)

PRODUCT DESCRIPTION	National DEFENDEM is a weather shield exterior, highly washable emulsion paint with 100% acrylic binder and high quality pigments & fillers to withstand the extreme tropical conditions of heavy rainfall humidity & heat. It is a long durable, protective and water resistant coating for exterior wall finishes with excellent anti-algae property. It provides very good alkali and UV resistances. National DEFENDEM helps to protect the concrete from carbonation and resists the penetration of water borne salts atmospheric gases. It contains specific anti fungal & anti algae additives.
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RECOMMENDED USES	National Defendem is mostly used for old & new exterior surfaces of cement plaster, concrete, brickwork, asbestos, sheets, masonry, wood etc. to get maximum protection from extreme tropical conditions like heavy rain fall, high humidity & heat. It can be used, to resist the growth of algae and fungi on exposed surfaces. Since it has excellent anti carbonation & chloride ion-ingress resistance, it is suitable for concrete repairs, commercial & industrial buildings, wing walls, underpasses etc. For the best result, use National Acrylic Primer W.B. as the primer coat. Do not use any putty filler. Use white cement and sand 1:3 for leveling surface imperfections if any.
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TECHNICAL DATA

COLOUR, DRY FILM	Unlimited Colours	Unlimited Colours
FINISH, DRY FILM	Smooth / Matt	Smooth / Silky
VOLUME SOLIDS (ASTM D2697)	47 ± 2%	47 ± 2%
SPECIFIC GRAVITY	1.30 ± 0.05	1.27 ± 0.05
THEORETICAL SPREADING	11.5 – 9.5 M ² /LTR	11.5 – 9.5 M ² /LTR
RECOMMENDED DFT (DRY FILM)	40 – 50 Microns / Coat	40 – 50 Microns / Coat
RECOMMENDED WFT (WET FILM)	85 –108 Microns / Coat	85 –108 Microns / Coat
FLASH POINT	Water Base	Water Base

DRYING TIME

Drying time @ 30°C (Temperature, humidity, air movement, film thickness and number of coats all affect the drying time.)		
TOUCH DRY	1 hour	1 hour
DRY TO RECOAT	4 – 6 hours	4 – 6 hours
FULL DRY	24 hours	24 hours



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ADVANTAGES

NATIONAL DEFENDEM	Low odour, decorative & protective coating, highly washable, very good alkali and water resistances, excellent adhesion, long lasting lustrous finish, very low dirt pick up, very good UV and weather resistance properties, excellent resistance to algae or fungus growth.
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APPLICATION INSTRUCTION

SURFACE PREPARATION	Before application, the surface should be sound, clean and free from oil, grease, loose particles, dust, etc. Application can be done by the recommended application methods.
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APPLICATION DATA

APPLICATION METHOD	Roller, Brush or Spray
CLEANING/THINNING	Water
THINNER (VOLUME)	10 – 15 % depends on method of application
CONV. SPRAY REQUIREMENTS	Possible
AIRLESS SPRAY REQUIREMENTS	Pressure: 2000 – 2500 psi
NOZZLE SIZE	0.018” - 0.021”
MIXING RATIO (BY VOLUME)	NA
POT LIFE @ 30°c (100 ml)	NA

SYSTEM

RECOMMENDED SYSTEM To be applied on prepared surface.	National Acrylic Primer (W.B.)	: 1 coat
	National Defendem	: 2 coats
	Additional coats can be applied for extra protection. Leveling Filler (if Required)	
	White cement and sand 1:3, along with water can be used.	

NATIONAL/INTERNATIONAL TEST CERTIFICATES

Sr. No.	Test Description	Test Reference	Compliance
1	Reduction in Water Absorption	ASTM D 870	
2	Rapid Chloride Permeability	ASTM C 1202 : 1997	



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ADDITIONAL DATA

SHELF LIFE @ 30°C	18 months, in original sealed container, with proper storage conditions.
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HEALTH & SAFETY

SAFETY PRECAUTIONS	Generally, most of the water base paints are quite safe to handle with due precautions. As a general rule, avoid skin and eye contact by wearing overalls, gloves, goggles, and mask 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 mask. In the event of ingestion and eye contact, seek medical attention immediately. Painting must be carried out in well-ventilated area. Local safety regulations to be followed.
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STORAGE & HANDLING

STORAGE	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 keep 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.
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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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