



**NATIONAL ALIPHATIC POLYURETHANE H.B.
DECORATIVE COATINGS**

TECHNICAL DATA SHEET

NATIONAL ALIPHATIC POLYURETHANE H.B

PRODUCT DESCRIPTION	A two pack, aliphatic iso – cyanate cured build polyurethane finish with excellent resistance to atmosphere exposure. The fully cured coating has excellent resistance to splash of mineral and vegetable oils, white spirit, paraffins and aliphatic petroleum products. It provides excellent colour retention and non – chalking properties. It has very good abrasion and water resistance.
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RECOMMENDED USES	A tough and abrasion resistant coating for cementitious metal, wooden etc. surfaces. It can be applied for interior/exterior applications. It can be over coated even after long atmospheric exposure. It is also used for the application of flooring.
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TECHNICAL DATA

COLOUR, DRY FILM FINISH, DRY FILM	Limited Smooth / Semi-gloss
VOLUME SOLIDS (ASTM D2697)	62 ± 2%
SPECIFIC GRAVITY	1.30 ± 0.05 (mixed)
THEORETICAL SPREADING	8.2 M ² /LTR
RECOMMENDED DFT (DRY FILM)	75 Microns/Coat
RECOMMENDED WFT (WET FILM)	120 Microns/Coat
FLASH POINT	25°C
FLEXIBILITY	Good
CHEMICAL RESISTANCE	Excellent
WATER RESISTANCE	Excellent
ABRASION RESISTANCE	Very Good

DRYING TIME

Drying time @ 30°C (Temperature, humidity, air movement, film thickness and number of coats all affect the drying time.)	
TOUCH DRY	1 – 2 hours
DRY TO RECOAT/ OVER COATED	8 – 10 hours
HARD DRY	7 days



ADVANTAGES

NATIONAL ALIPHATIC POLYURETHANE H.B	Two component high build polyurethane. Good adhesion on various surfaces. It has excellent water and chemical resistance suitable for interior and exterior applications, excellent colour retention and non – chalking properties, very good abrasion resistance.
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APPLICATION INSTRUCTION

SURFACE PREPARATION	New concrete should be allowed to cure for at least 28 days. Remove all grease, oil and other foreign materials by scrubbing with a heavy duty concrete cleaner. On permanent coatings it is recommended that the surface be roughened with suitable mechanical devise. On metal surface, an abrasive sandblast is required to Sa3, to make the metal absolutely free from loose particles, mil scales and dead metals. Surface should be clean and sound before painting.
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APPLICATION DATA

APPLICATION METHOD	Conventional Spray, Airless Spray, Roller or Brush (touch – up)
CLEANING/THINNING	National Polyurethane Thinner (thinner should be added after mixing the components)
THINNER (VOLUME)	5%, depending on method of applications
CONV. SPRAY REQUIREMENTS	Pressure: 40 psi
AIRLESS SPRAY REQUIREMENTS	Pressure : 2200 psi
NOZZLE SIZE	0.016” – 0.020”
MIXING RATIO (BY VOLUME)	Base : Hardener 4 : 1 (Mixing properly, keep for 10 – 15 minutes before use)
POT LIFE @ 30°C (100 ml)	4 hours (reduced at higher temperature) Note: Material may gel at elevated temperature.



SYSTEM

<p>RECOMMENDED SYSTEM To be applied on prepared surface. Apply on dust free, moisture free surface. For anti skidding spread uniformly fine or medium size aggregates when first coat is wet. Apply second coat after 8 – 10 hours.</p>	<u>For cementitious floor surfaces.</u>	
	National Guard Primer for Cement (Clear)	: 1 coat
	National Aliphatic Polyurethane H.B.	: 2 coats
	If more thickness is required, apply 1-2 coats of National Guard Epoxy Flooring Topcoat S.F. OR National Guard Epoxy Flooring Topcoat OR National Epoxy Glasscote over primer coat.	
	<u>For cementitious/plastered surfaces.</u>	
	National Guard Primer for Cement (Clear)/White	: 1 coat
	National Interguard H.B. (Spray Texture) (if required)	: 1 coat
National Aliphatic Polyurethane H.B.	: 2 coats	

NATIONAL/INTERNATIONAL TEST CERTIFICATES

Sr. No.	Test Description	Test Reference	Compliance
1	Shore A' Hardness	ASTM D 2240	
2	Shore D' Hardness	ASTM D 2240	
3	Tensile Strength	ASTM D 638	
4	Bond Strength/Pull Off Strength	BS 1881 Part 207 BS EN 1542	
5	Impact Resistance	ISO 6272	
6	Rapid Chloride Permeability	ASTM C 1202:97	
7	Alkali Resistance	ASTM D 543	
8	Chemical Resistance	ASTM D 1308:87 ASTM D 543	
9	Crack Bridging Ability	ASTM C 836:95	
10	UV Resistance	ASTM G 154	
11	Water Permeability	BS EN 12390	
12	Abrasion Resistance	ASTM D 4060 – 2001	
13	VOC	ISO 11890 - 2	Local Regulatory Requirements



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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	<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 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 regulation 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.
Issued: 0919