

# ShaliKote® NES

2K Anti-Corrosive Chemical Resistant Novolac Based Epoxy



STP Limited

## Description

**ShaliKote® NES** is novolac based epoxy system for protection of concrete floors/metal structure against splash and spillage of corrosive chemicals and solvents at higher temperature. It is an excellent coating system for secondary containment, solvent storage, pump pads, trenches, bridges and other high exposure zones.

**ShaliKote® NES** is supplied in two variants **ShaliKote® NES 60** for concrete surface whereas **ShaliKote® NES 70** for both concrete and metal surface with high impact resistance.

## Characteristics – Physical

	ShaliKote® NES 60	ShaliKote® NES 70
Colour	White / Any Colour	Pink / Any Colour
Service Temperature – Dry, °C	90	90
Mixing Ratio, by volume	2 : 1	3 : 1
Surface drying time, hr @ 55% RB	2	3 – 4
Scratch hardness, kg	> 1.5	>1.5
Pot life @ 27 °C	3 – 4 hr 100 gm mix	2 hr, 100 gm mix
Volume Solid, %	62 ± 2	75 ± 2
Theoretical coverage*, m <sup>2</sup> / L	6, DFT 100 micron 2.5, DFT 250 micron	7.8, DFT 100 micron 4, DFT 200 micron
Recommended DFT, micron	200 - 250	100 – 200
Recoat time, hr	10 – 12	8 - 10

## Characteristics – Technical

Property	Method	ShaliKote® NES 60	ShaliKote® NES 70
Shore Hardness D	ASTM D 2240	45 - 55	55 - 60
Elongation, %	ASTM D 638	15 – 20	25 – 30
Tensile Strength, N/mm <sup>2</sup>	ASTM D 638	8 - 9	7 – 8
Impact Resistance	ASTM D 2794	20 kg-inch	150 kg-inch
Flash Point, °C	IS 101	> 30	> 30
Salt Spray, 2000 hrs	ASTM B 117	Pass	Pass
Cathodic disbandment, mm	AWWA C 210	< 8	< 8
Abrasion resistance, mg	ASTM D 4060	98	90
Adhesion N/mm <sup>2</sup>	ASTM D 4541	> 2.6 – for concrete	> 2.6 – for concrete > 8 – for metal
Chemical Resistance <ul style="list-style-type: none"><li>• 20% NaOH Solution</li><li>• 25% NaOH Solution</li><li>• 20% HCl Solution</li><li>• 10% HNO<sub>3</sub> Solution</li><li>• 30% H<sub>2</sub>SO<sub>4</sub> Solution</li><li>• 10% Phosphoric Acid</li><li>• Diesel / Petrol</li></ul>		Pass, No blister No wrinkling	Pass, No blister No wrinkling

## Application

- Excellent anti-corrosive coating for concrete flooring exposed to acid / alkali fumes emanating at high temperature, like in Ammonium Sulphate / Annealing / Acid Plants.
- Leather processing units, fertilizer plants, are some of the areas where **ShaliKote® NES** will work efficiently.

## Advantages

- Excellent resistance to acid and alkali vapours.
- Low VOC material.
- Bonds well at low temperature & humidity.
- Short re-coating time.

## Application Methodology

### ➤ Surface Preparation

- Remove dust, flakes, oil, grease or other foreign particles by jet or dry air and clean the surface to make it smooth before applying **ShaliKote® NES**. Surface of steel must be prepared as per the NACE (National Anti-Corrosion Engineers) or SSPC (Steel Structure Protection Council) guidelines. For non-immersion purpose near white surface is adequate while for immersion service white metal surface is desired. Surface of steel and concrete must be free from dust, oil, soap and greasy material.

### ➤ Material Preparation

- Stir drums of each component thoroughly for homogeneousness with hand drill type stirrer to ensure dispersal of any settled filler for about 5 minutes for a 15 L pack. Then mix Component A and Component B in the ratio of 2: 1 by volume (for **ShaliKote® NES 60**) and 3:1 by volume (for **ShaliKote® NES 70**). Stirring at slow speed for homogenization of the two components.
- Place the spiral blade at the bottom of the container before starting the mixer. This will help avoiding inducting air into the mass. Slowly move the stirrer head up to the surface while stirring. Do not remove the blade while still spinning. This procedure is continued for 5 minutes up and down to have a homogeneous mixing. Allow the mix 5 minutes, and then stir again gently with a hand stirrer to ensure uniformity and begin application.

### ➤ Application of Material

- Prime the surface by ShaliPrime 2E for concrete surface and ShaliPrime Zn Ph for metal surface.
- Allow the primer to dry completely before applying **ShaliKote® NES**.
- Apply **ShaliKote® NES** by brush or spray with medium or short nap squeegee rollers.

## Health & Safety

- Avoid contact with skin / eyes, and avoid swallowing.
- Ensure adequate ventilation and avoid inhalation of vapour.
- Wear suitable protective clothing, gloves and eye protection.
- In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of eye contact, wash with plenty of clean water and seek medical advice.
- If swallowed, seek medical attention immediately. Do not induce vomiting.

## Packing

**ShaliKote® NES 60** available in 4.5 L and 15 L composite packs at the ratio of 2 : 1.  
**ShaliKote® NES 70** available in 20 L composite pack at the ratio of 3 : 1.

## Storage

Keep in cool and dry place, under shed, away from heat and sun.

## Shelf Life

12 Months in original unopened sealed condition.

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