

# NEPCCO<sup>TM</sup> WE BUILT IT BETTER



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NEPFLOW SHUTTERING OIL-105™

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- NEP PLAST BS-557<sup>™</sup>

### **NEPFLOW H CRETE-200**





#### **Application Area**

- Cement Concrete work
- Precast concrete
- Column and beam
- Pre stress concrete
- Reinforced and unreinforced concrete above M30

#### **Benefits**

- Permits concrete placement in congested reinforcement concrete
- Reduce water cement ration by 15 to 20%
- Improve workability and compressive strength
- Makes concrete pumpable
- Higher durability
- To create impervious and dense concrete, ideal for slopping roof, thin shell roof

#### Method of application

The dosage ratio depends on mix design and site specification requirements, recommended dosage as a guideline 0.6 to 1% of 50kg cement.

#### **Technical Information**

Properties	Results
Appearance	Free Flowing thin liquid
Colour	Brown
Sp. Gravity @25°C	$1.15 \pm 0.02$
Non Volatile content	$13 \pm 0.05\%$
PH Value	7 to 8
Setting time, minutes	Initial -100; Final - 280
Chloride contents	Nil
Water permeability	>80% of the control

### **NEPFLOW QUICK CRETE HX-111**





#### **Application Area**

- Cement Concrete work
- Reinforced and unreinforced concrete where some retardation is required
- Column and beam
- Series and time framing concrete work

#### **Benefits**

- Reduce water cement ration by 5 to 8%
- Improve workability and compressive strength
- Higher durability & finishing concrete
- To create impervious and dense concrete
- Retardation of concrete

#### Method of application

The dosage ratio depends on mix design and site specification requirements, recommended dosage as a guideline 0.6 to 1% of 50kg cement

#### **Technical Information**

Properties	Results
Appearance	Free Flowing thin liquid
Colour	Brown
Sp. Gravity @25°C	$1.2 \pm 0.02$
Non Volatile content	$13 \pm 0.05\%$
PH Value	7 to 8
Setting time, minutes	Initial - 280; Final - 600
Chloride contents	Nil
Water permeability	>60% of the control

### **NEPFLOW PC-10**





#### **Application Area**

- Cement Concrete work
- Column and beam
- Reinforced and unreinforced concrete
- Precast concrete
- Concrete work near sea area
- Pre stress concrete

#### **Benefits**

- Permits concrete placement in congested reinforcement concrete
- Reduce water cement ration by 10 to 12%
- Improve workability and compressive strength Higher durability & finishing concrete
- To create dense concrete
- Accelerating Concrete Work

#### Method of application

The dosage ratio depends on mix design and site specification requirements, recommended dosage as a guideline 0.6 to 1% of 50kg cement

#### **Technical Information**

Properties	Results
Appearance	Free Flowing thin liquid
Colour	Light Redish Yellow
Sp. Gravity @25°C	$1.35 \pm 0.02$
Non Volatile content	$20 \pm 0.05\%$
PH Value	7 to 8
Setting time, minutes	Initial - 80; Final - 240
Chloride contents	Nil
Water permeability	>60% of the control

### **NEPFLOW HX-100**





#### **Application Area**

- Cement Concrete work
- Reinforced and unreinforced concrete
- Precast concrete Accelerating Concrete work

#### **Benefits**

- Accelerating admixture for unreinforced cement. concrete/mortar
- Higher durability & finishing concrete
- To create impervious and dense concrete
- Enables earlier release from precast moulds thus speeding production
- Accelerates the hardening of floors and screeds.

#### Method of application

The dosage ratio depends on mix design and site specification requirements, recommended dosage as a guideline 0.6 to 1% of 50kg cement, depends on mix design.

#### **Technical Information**

Properties	Results
Appearance	Free Flowing thin liquid
Colour	Light Yellow
Sp. Gravity @25°C	$1.35 \pm 0.02$
Non Volatile content	$20 \pm 0.05\%$
PH Value	7 to 8
Setting time, minutes	Initial - 100; Final - 280
Chloride contents	Nil
Water permeability	>60% of the control

### **NEPFLOW NX-70**





#### **Application Area**

- Mass concreting works
- Concrete with high strength properties
- Self compacting concrete

#### **Benefits**

- High reduction in water cement ratio
- Produces highly workable concrete
- Increase flexural and initial compressive strength.

#### Method of application

The recommended dosage as per guidance is 0.60 to 1.00 % of cementitious content.

#### **Technical Information**

Properties	Results
Appearance	Light brown liquid
Colour	Brown
Sp. Gravity @25°C	$1.07 \pm 0.03$
PH Value	7 to 8
Setting time, minutes	Same as control Concrete
Chloride contents	Nil
Water permeability	>60% of the control

### **NEPFLOW ANTI-WASHOUT**





#### **Application Area**

To reduce the washout of cement and fine aggregates when placing concrete underwater, 10-32 oz/100 lbs (0.65-2.1 L/100 kg) of cement is recommended. At a dosage rate of 25 oz/100 lbs (1.6 L/100 kg) of cement, set retardation may be 6 to 10 hours. In non air entrained concrete applications, the concrete should be batched and the slump adjusted either with water or HRWR prior to the addition of NEP AWA.

#### **Benefits**

- Minimal environmental impact due to cement washout
- Greatly reduces or eliminates concrete bleed water
- Superior slump retention
- Does not effect water demand when slump is maintained
- Eliminates the need for de-watering during underwater construction
- Easily metered with standard admixture dispensing equipment.

#### Method of application

- Do not allow material to freeze.
- The Euclid Chemical Company recommends running trial batches prior to use to determine the effect on the workability, air entrainment, setting times, and hardened concrete properties.
- Significant set retardation may occur with the use of this product.
- In all cases, consult the Safety Data Sheet before use.

#### **Technical Information**

Properties	Results
Appearance	Brown Color liquid
Chemical Base	Polycarboxylate Ether
Sp. Gravity @25°C	$1.05 \pm 1.10$
Non Volatile content	$20 \pm 0.05\%$
PH Value	7 to 8
Chloride contents	Nil
Water permeability	>60% of the control

### **NEPFLOW PC-15**





#### **Application Area**

- All type of concrete works
- RCC and PCC works
- Loading and Non loading structure
- The recommended dosage as per guidance is 0.60 to 1.20 % of cementitious content.

#### **Benefits**

- Reduce water demand in concrete
- Create high strength concrete
- To create Impervious and dense concrete

#### Method of application

The dosage ratio depends on mix design and site specification requirements, recommended dosage as a guideline 0.6 to 1% of 50kg cement, depends on mix design.

#### **Technical Information**

Properties	Results
Appearance	Brown Color liquid
Chemical Base	Polycarboxylate Ether
Sp. Gravity @25°C	$1.05 \pm 1.10$
Non Volatile content	$20 \pm 0.05\%$
PH Value	7 to 8
Chloride contents	Nil
Water permeability	>60% of the control

### **NEPFLOW NX-50**





#### **Application Area**

- Mass concreting works
- Concrete with high strength properties
- Self compacting concrete

#### **Benefits**

- High reduction in water cement ratio
- Produces highly workable concrete
- Increase flexural and initial compressive strength.

#### Method of application

The recommended dosage as per guidance is 0.60 to 1.00 % of cementitious content.

#### **Technical Information**

Properties	Results
Appearance	Brown Color liquid
Chemical Base	Polycarboxylate Ether
Sp. Gravity @25°C	$1.05 \pm 1.10$
Non Volatile content	$20 \pm 0.05\%$
PH Value	7 to 8
Chloride contents	Nil
Water permeability	>60% of the control

#### **NEPFLOW P-35**





#### **Application Area**

- Ready Mix Concrete for Higher grades
- High Strength Concrete above M40
- Self Compacting Concrete
- Precast/Pre-stressed Concrete
- Pumped concrete

#### Primary uses to obtain

Excellent dispersion resulting in High workability & superb slump retention. Increases early & ultimate strengths Increases Flexural strength & E-modulus Can be placed and compacted in congested reinforcements without vibration & improves surface finish. Reduced labour requirement Increases durability & impermeability Ideal for use in Selfcompacting Concrete along with NEPCCO - VMA, Viscosity Modifying Admixturek

#### Method of application

Add 80-90% water to the concrete based on Mix Design by weight. The correct quantity should be measured with recommended dispenser and should be added to the concrete with remaining mixing water.

Allow to mix it for recommended mixing time. The addition of dry mixes or cement is not recommended. Thorough mixing is essential and after addition of this, minimum mixing cycle of 60 seconds for forced action mixers is recommended.

#### **Technical Information**

Properties	Results
Appearance	Brownish black liquid
Chemical Base	Polycarboxylate Ether
Sp. Gravity @25°C	$1.05 \pm 1.10$
Non Volatile content	$20 \pm 0.05\%$
PH Value	7 to 8
Chloride contents	Nil
Water permeability	>60% of the control

### **NEPFLOW PC-10**





#### **Application Area**

- Precast/Pre-stressed Concrete
- High Strength Concrete
- High Performance Concrete
- Self Compacting Concrete
- Pumped concrete

#### **Benefits**

- Accelerating admixture for unreinforced cement. concrete/mortar
- Higher durability & finishing concrete
- To create impervious and dense concrete
- Enables earlier release from precast moulds thus speeding production
- Accelerates the hardening of floors and screeds.

#### Method of application

Add 70-80% water to the concrete based on Mix Design by weight. The correct quantity of NEPCCO-Nepflow PC 10 should be measured with recommended dispenser and should be added to the concrete with remaining mixing water. Allow to mix it for recommended mixing time. The addition of NEPCCO-Nepflow PC 10 to dry mixes or cement is not recommended.

Thorough mixing is essential and after addition of NEPCCO-Nepflow PC 10, minimum mixing cycle of 60 seconds for forced action mixers is recommended.

#### **Technical Information**

Properties	Results
Appearance	Brownish black liquid
Chemical Base	Polycarboxylate Ether
Sp. Gravity @25°C	$1.05 \pm 1.10$
Non Volatile content	$20 \pm 0.05\%$
PH Value	7 to 8
Chloride contents	Nil
Water permeability	>60% of the control

### **NEPFLOW RE/SF-300**





#### **Application Area**

- Precast/Pre-stressed Concrete
- High Strength Concrete
- High Performance Concrete
- Self Compacting Concrete
- Pumped concrete

#### **Benefits**

- Accelerating admixture for unreinforced cement. concrete/mortar
- Higher durability & finishing concrete
- To create impervious and dense concrete
- Enables earlier release from precast moulds thus speeding production
- Accelerates the hardening of floors and screeds.

#### Method of application

Add 70-80% water to the concrete based on Mix Design by weight. The correct quantity of NEPCCO-Nepflow PC 10 should be measured with recommended dispenser and should be added to the concrete with remaining mixing water. Allow to mix it for recommended mixing time. The addition of NEPCCO-Nepflow PC 10 to dry mixes or cement is not recommended.

Thorough mixing is essential and after addition of NEPCCO-Nepflow PC 10, minimum mixing cycle of 60 seconds for forced action mixers is recommended.

#### **Technical Information**

Properties	Results
Appearance	Pale straw colored liquid
Colour	Light Yellow
Sp. Gravity @25°C	$1.15 \pm 1.02$
Non Volatile content	$20 \pm 0.05\%$
PH Value	7 to 8
Chloride contents	Maximum 0.2%
Water permeability	>60% of the control

### **NEPFLOW AEA/SF-400**





#### **Application Area**

- Roads
- Runways and taxiways
- Aprons and hard standings
- Dams and reservoirs
- Mass concrete structure

#### **Benefits**

- Increased frost resistance
- Resistance to de-icing salts
- Improved workability
- Improved durability
- Increased cohension reducing the risk of segregation
- Reduced water content without loss of workability
- Unaffected setting time even when overdosed.

#### Method of application

Increased air contents generally have a detrimental effect on strengths.

#### **Technical Information**

Properties	Results
Type	Surface active agent
Colour	Brown liquid
Density	1.01 Kg/l (ASTM)
PH Value	7 to 8
Water permeability	>60% of the control

### **NEPFLOW S-44**





#### **Application Area**

- Ready mix concrete
- Piliing concrete
- Casting in hot climates
- Pumped concrete

#### Primary uses to obtain:-

- High workability for longer period
- Higher ultimate strengths
- Reduced permeability
- Improved durability

#### Method of application

Add 70-80% water to the concrete based on mix design by weight. The correct quantity of Nepflow S-44 should be measured with recommended dispenser and should be added to the concrete with remaining mixing water. Allow to mix it for recommended mixing time. The addition of Nepflow S-44 to dry mixes of cement is not recommended.

#### **Technical Information**

Properties	Results
Appearance	Brownish black liquid
Chemical Base	Polycarboxylate Ether
Sp. Gravity @25°C	$1.05 \pm 1.10$
Non Volatile content	$20 \pm 0.05\%$
PH Value	7 to 8
Chloride contents	Nil
Water permeability	>60% of the control

### **NEPFLOW CURESHIELD BS-253**





#### **Application Area**

Suitable for all general concreting applications and of particular benefit for

- Large area concrete surfaces, Pavement
- Abutments in bridges
- Airport runways,

Bridgeworks

Roads

#### **Advantages**

- Effective curing membrane allows continuous and gradual curing without constant attention.
- Control of moisture loss improves surface quality, reducing permeability, producing a hard wearing, dust free surface.
- No curing necessary-eliminates use of water, completely.
- Reduces surface cracking and shrinkage by eliminating moisture loss.
- Spray application reduces labour costs and eliminates the need for alternative curing systems

#### **Application Method**

NEPFLOW CURESHIELD-101 may also be applied to the surface of newly hardened concrete immediately after demoulding. In such cases the concrete surface must be damp and not dry. Dry surfaces may prevent correct film formation and cause absorption of the NEPFLOW CURESHIELD-101 which may lead to staining and difficulty in later removal.

#### **Technical Information**

Properties	Results
Colour	White color liquid
Specific gravity at 30°C	$0.87 \pm 0.02$
Viscosity at 30°C by B4 cup	15-16 sec
Application temperature	5 °C to 45°C
Drying time Approx	2 hrs at 30°C

Packing Size: 210 liter Barrel 50 liter can

### **NEPFLOW CURESHIELD BS-254**





#### **Product Description**

NEPFLOW CURESHIELD-102 is solvent based concrete NEPFLOW CURESHIELD-102 based on a low viscosity Acrylic emulsion. It is supplied as a white emulsion which forms a white film on drying. When first applied to a fresh cementitious surface the emulsion breaks to form a continuous, nonpenetrating white coating. This dries to form a continuous white film which provides a barrier to moisture loss, ensuring more efficient cement hydration, improved durability and reduced shrinkage.

#### **Properties**

- Improved curing of concrete enhances cement hydration and provides a more durable concrete.
- Rapid film formation
- Better resistance to abrasion
- Non-flammable, non toxic

#### **Application**

Suitable for all general concreting applications and of particular benefit for

- Large area concrete surfaces
- Pavement
- Abutments in bridges
- Airport runways,
- Bridgeworks
- Roads

#### **Technical Information**

Properties	Results
Colour	White color liquid
Specific gravity at 30°C	$0.87 \pm 0.02$
Viscosity at 30°C by B4 cup	15-16 sec
Application temperature	5 °C to 45°C
Drying time	Approx 2 hrs at 30°C

Packing Size: 210 liter Barrel 50 liter can

### **NEPFLOW SHUTTERING OIL-105**





#### **Product Description**

NEPFLOW SHUTTERING OIL-105 is an blend of selected mineral oil and non hazardous chemicals, specially formulated to produce release properties which are superior to those of a conventional NEPFLOW SHUTTERING OIL-105 is supplied as liquid, ready for direct application on site. the chemically reactive components in ADDAGE BONDCOTE 200 SN provide a water repellent interface which protects formwork and ensures an even color and texture of the cast concrete. in addition to preventing adhesion of the cement matrix to the formwork, NEPFLOW SHUTTERING OIL-105 will allow air to escape from the interface during concrete placing and vibration. This release of air minimizes surface blemishes and results in a substantial reduction in remedial costs...

#### **Properties**

- To provide quick, clean and easy stripping of moulds and formwork
- Ensure high quality fair-faced and stain-free concrete.
- Extends life of the shuttering.

#### **Application**

It is designed for use with timber, steel, G.R.P, aluminum shuttering and other resinous formwork coating.

#### Advantages

- Low cost and Solvent dilutable-economical to use.
- Non hazardous, non toxic
- Suitable for all types of concrete moulds/ formworks
- Non-staining.
- Minimizes cleaning of shutters before reuse.
- Reduces imperfections on concrete surfaces.

#### **METHOD OF APPLICATION**

#### Preparation of new moulds

No preparation is necessary but if extensive re-use of timber moulds is envisaged, it is advisable to protect all new surfaces from alkali attack which can result in a very short usable life. Steel moulds require no special treatment other than the removal of rust or oil, although wetting out may be improved by lightly abrading the surface.

#### Preparation of used moulds

All traces of adherent material either concrete or previous oil deposits must be removed prior to use. Moulds previously used with NEPFLOW SHUTTERING OIL-105 will require only light brushing as the presence of fine dust will improve the wetting out properties of NEPFLOW SHUTTERING OIL-105. This will usually result in improved release properties on the second and subsequent uses of the mould.

#### **Coating**

NEPFLOW SHUTTERING OIL-105 can be applied by brush or conventional mould oil sprayer. If a mould oil sprayer is used care should be taken to ensure that a fine nozzle is fitted as NEPFLOW SHUTTERING OIL-105 should be applied in a light continuous film. We can also use synthetic cloth for application. If NEPFLOW SHUTTERING OIL-105 is over applied, excess material should be allowed to drain and then carefully removed from the bottom of the mould by means of a sponge or cloth. Pools of NEPFLOW SHUTTERING OIL-105 should not be allowed to dry otherwise surface retardation of the concrete may occur. Unlike conventional mould oils, NEPFLOW SHUTTERING OIL-105 does not possess residual release properties so it is important prior to each occasion of use, all areas of the mould are recoated. Particular attention should be paid to coating mould rims in order to avoid adhesion of overspill cement slurry.

#### Cleaning

Should the sprayer be subsequently required for a solvent or oil based product, it is advisable to wash out with clean water and allow to drain. Brushes should be washed well in clean tap water after use.

#### **COVERAGE**

Coverage rate is dependent on the porosity of the mould material being used .The coverage rate and the form release properties of NEPFLOW SHUTTERING OIL-105 will be reduced if the formwork is of an old/worn nature.

Approx coverage is 15-20 m<sup>2</sup>/L

#### **Technical Information**

Properties	Results
Colour	Gray to Brown Colour liquid.
pН	7
Solution Type	Emulsion
Specific gravity	0.9gm/cm3±0.5.
Dilution	If you find material little thick to apply then you
	can mix solvent (Kerosene or Diesel)
Viscosity	180 sec ±30 sec.

Packing Size: 210 liter Barrel 50 liter can



- Ceramic Tiles 2' x 1', 2' x 2'
- Vitrified Tiles on Wall, Bathroom & Floor\* 2' x 1', 2' x 2' \*For external use consult Redwop

#### **Substrate**

- Plaster
- Cement base Surface
- RCC Surface
- AAC Block Surface
- Mosaic Tile Surface

#### **Technical Information**

Properties	Results
Appearance	Powder Grey / White
Mixing Ratio	3.6 ltr. clean water mix with 20kg
Adhesive Thickness	3 to 10 mm
Open Time	20 min at 20°C
Adjustability time Pot Life	20 min at 20°C
Shear Strength	$> 1100 \text{ KN/m}^2$
Tensile Strength	$> 600 \text{ KN/m}^2$
Slip Resistance in mm	0 mm
Pot Life at 27°C	Approx 2 Hour
Bulk Density	1.82 gm/cc



#### **Application Area**

- Vitrified Tiles on Wall, Bathroom & Floor\*: -2' x 2', 2' x 4'
- Stone on Window/Door Frame, Wall & Floor\*: 2ft & 3ft Length \*For external use consult Redwop

#### Substrate

- Plaster
- Cement base Surface
- RCC Surface
- AAC Block Surface
- Mosaic Tile Surface
- Stone & Red Brick Surface
- Running granite marble framing

#### **Technical Information**

Properties	Results
Appearance	Powder Grey / White
Mixing Ratio	3.7 ltr. clean water mix with 20kg
Adhesive Thickness	3 to 15 mm
Open Time	20 min at 20°C
Adjustability time Pot Life	20 min at 20°C
Shear Strength	$> 1400 \text{ KN/m}^2$
Tensile Strength	$> 1100 \text{ KN/m}^2$
Slip Resistance in mm	0 mm
Pot Life at 27°C	Approx 2 Hour
Bulk Density	1.80 gm/cc



#### **Application Area**

- Ceramic Tiles :- 2' x 1', 2' x 2'
- Vitrified Tiles on Wall, Bathroom & Floor\*:-2' x 1', 2' x 2'
  - \*For external use consult Redwop

#### **Substrate**

- Plaster
- Cement base Surface
- RCC Surface
- AAC Block Surface
- Mosaic Tile Surface

#### **Technical Information**

Properties	Results
Appearance	Powder Grey / White
Mixing Ratio	3.6 ltr. clean water mix with 20kg
Adhesive Thickness	3 to 10 mm
Open Time	20 min at 20°C
Adjustability time Pot Life	20 min at 20°C
Shear Strength	$> 1100 \text{ KN/m}^2$
Tensile Strength	$> 600 \text{ KN/m}^2$
Slip Resistance in mm	0 mm
Pot Life at 27°C	Approx 2 Hour
Bulk Density	1.82 gm/cc



**Application Area** 

Ceramic Tiles\*:-2' x 1', 2' x 2' \*For external use consult Redwop

#### **Substrate**

- Plaster
- Cement base Surface
- **RCC** Surface
- Mosaic Tile Surface

#### **Technical Information**

Properties	Results
Appearance	Powder Grey
Mixing Ratio	3.8 ltr. clean water mix with 20kg
Adhesive Thickness	3 to 20 mm
Open Time	20 min at 20°C
Adjustability time Pot Life	20 min at 20°C
Shear Strength	$> 2000 \text{ KN/m}^2$
Tensile Strength	$> 1600 \text{ KN/m}^2$
Slip Resistance in mm	0 mm
Pot Life at 27°C	Approx 2 Hour
Bulk Density	1.75 gm/cc

### TILE STONE ADHESIVE



#### **Application Area**

For fixing all types of tiles and stones on external wall (2\*8 sq.ft, verified / ceramic tiles), Escalator Area, Weather Effect Area, Swimming Pools, Commercial Spaces, Residential Spaces and Exterior

#### Advantages

- Multi-purpose Hi-Polymer modified thin set adhesive.
- Two Components (Powder and Liquid Base) Easy application to just mixing Powder, Liquid and water only.
- High bond strength Suitable for exterior application of various tiles & stones.
- Ready to use only water to be added, needs no curing.
- Contains special chemicals to obtained non-shrink and Excellent adhesion with low shrinkage.
- Crack free, breakage free & firm surface that preserves beauty of tiling for longer time.
- Quick tiling benefits for contractors & consumers in terms of time saving.
- Good mechanical strength.

#### **Technical Information**

Properties	Results
Appearance/Colors	White or Grey Powder
Mix Ratio	6.5 to 7.5 litre water for 20 kg
	Material Approx.: 25-30% by weight
Open Time	Approx. 30 to 45 min
POT Life	Approx. 2.5 to 3hrs.
Setting Time	Initial set - 3 Hrs., Final set - 24 Hrs.
Compressive Strength (N/mm²)	3 days - 5.3, 7 days - 7.9, 28 days - 13
Pull of Adhesion (28 Days)	$1.7 \text{ N/mm}^2$
Layer Thickness	3-12mm (Minimum)
Standards	EN 12004, TYPE C2, CHARACTER-TE

**Packing Size**: 20kg and 25kg packs.

### **NEP ULTRACORE-112**



#### **Application Area**

- Waterproofing & Concrete Restoration
- Decorative Coatings
- Moisture Vapor Remediation
- Flooring Injection Grouting
- Swimming pools (tiled/untiled), Marine and zoo aquarium tanks, Plaza decks and patios, Balconies, parapet walls, planter boxes, Mechanical rooms, Underneath flexible tile mortars in kitchens, bathrooms, swimming pools, balconies, Water and waste water treatment tanks, Above and below grade, interior or exterior, Foundations etc.

#### **Features**

- UV resistant.
- Self curing.
- Easy application.
- Solvent free environmentally friendly.
- Available in several colors.
- Can be painted for uniform colo.
- Applied to moist or damp substrates.
- Withstands pedestrian and light traffic; resists mechanical wear, abrasion and de-icing salts.
- Resists strong hydrostatic pressure (tested up to 460 ft. [140 m] water head, positive side).
- Permanently flexible coating, elongation up to 70% (gray).
- Crack bridging up to 1/16" (1.5 mm).
- Meets or exceeds ANSI 118.10 and ANSI 118.12 (standard performance)

### NEP PREMIUM SBR-113



#### **Application Area**

- For concrete repairs: Spelled concrete of floors, columns, beams, chhajja, slabs, parapets, etc.
- For waterproofing: Small roof terraces, sunken portions of toilets & bathrooms, chajja & lift pits, balconies.
- As a bond coat: For bonding of new concrete to old concrete, masonry stonework, plastering.
- For Cladding: Fixing or re-fixing of slip bricks, tiles, stones & marble bedding.
- As external rendering: Weather-proof & frost resistant
- As bonding slurry coat for pinhole treatment on concrete surface.
- The emulsion adheres very well to all kind of substrates such as concrete, brickwork, tiles, wood etc.

#### **Benefits**

- Less material wastage as material does not fall back/rebound
- Multipurpose & economical product
- It prevents cracking by improving flexural strength hardness
- Improves the hardness□ & prevents dust generation
- Reduces drying & aging shrinkage cracks
- Bond strongly to concrete, masonry, stonework, plasters, cementitious surfaces

#### **Technical Information**

Properties	Results
Appearance	White, low viscous emulsion
Dry Solid	51.0 +/- 1 %
Ph	7 – 8
Surface	Non-tacky
Brookfield viscosity (RVT1/10)	<500 cps
Particle size	ca.160nm
MFFT:	+9°C
Tg (DMA)	+10 °Cl

### NEP DELUXECORE-114



#### **Application Area**

- Water tanks, reservoirs, swimming pools
- Roofs and terrace of all types of low and high rise building
- To protects against concrete decay providing a long lasting barrier to waterborne corrosive salts and atmospheric gases
- To re-face and even out variations in concrete and masonry surfaces
- To seal concrete masonry walls and bridges the shrinkage cracks which are static
- To provide a tough and durable coating which cannot be easily damaged or worn away

#### Advantages

- Minimum surface preparation needed Low labor costs
- Applied directly to the damp concrete and masonry
- Excellent adhesion Bonds to porous and nonporous surfaces
- Non-toxic-ideal for potable water tanks
- Waterproof Excellent for damp-proofing basements
- Breathable-allows transmission of water vapor from interior of building
- Excellent for concrete roof, leaking brick and masonry walls
- Good resistance to Carbon dioxide and Chloride ion diffusion

#### **Technical Information**

Properties	Results
Colour	Grey / White
Application temperature	Not less than 10°C
Mixed density	1.90 Kg/L (brushable consistency)
Pot life @20°C and @ 35°C	1 hrs and 20 min respectively
Tensile strength	2 N/mm <sup>2</sup> (at 1.5 mm thickness)

### **NEP PROOFCORE-500**



#### **Application Area**

- Roofs, terraces and balconies as a sandwich layer
- Pools and fountains
- Reservoirs and channels
- End walls subjected to rain

#### Advantages

- Non-toxic, non-flammable and user friendly
- Can be used in portable water tank also
- Provides a tough, impermeable waterproof membrane
- Can be applied by brush, on horizontal and vertical surfaces
- Excellent adhesion to concrete and masonry surfaces
- Protects concrete and mortar from natural elements such as wind, rain, sunlight
- Breathable allows inside water vapor to escape

#### **Application Procedure**

- Remove all dust, laitance or debris the surface must also be free from oil, grease, wax or any other form of foreign matter which might affect adhesion.
- The surface should be primed with PROOFCORE-500 as follows: 1 part of PROOFCORE-500: 2 parts of Water: 4 parts of Cement Mixed material with the above proportion will cover an area of 16-17m<sup>2</sup>.
- Topcoat shall be mixed with cement in ratio 1:2 respectively to obtain uniform and consistent slurry avoiding any lump formation Stir the material till the entire quantity is applied, so that solids do not settle at the bottom of the container.

#### **Technical Information**

Properties	Results
Application temperature	Not less than 10°C
Water absorption	1% maximum
Pot life @30°C	30 min
toxicity	Non toxic
Bond strength of concrete	Approx. 1 N/mm <sup>2</sup>

### **NEP MULTIPURPOSE LW-221**



#### **Application Area**

- Basements, Roof slabs and screeds.
- Water tanks & water retaining structures.
- External plastering.
- Bathrooms and balconies.
- Sumps and drains
- Dry & wet area.
- Worktops, swimming pools
- Wall plaster
- Concreting / internal plastering. (Compliance AS Per IS2645 2003)

#### Advantages

- Compatibility Being a liquid, easily dispersible & compatible with concrete/mortar mixes.
- Cohesiveness makes the concrete/mortar more cohesive, hence no bleeding & segregation.
- Durability increases durability by improving integral waterproofing of concrete.
- Breathing it retains the breathing efficiency of concrete.
- Permeability it reduces the permeability of water into concrete.
- Economics it is an economical additive as compared to other waterproofing materials.
- Strength the setting time and compressive strength of the concrete remains within the specification
- Shrinkage reduces shrinkage crack development in plaster & concrete.

#### **Technical Information**

Properties	Results
Appearance	Free flowing liquid
Colour	Wine red
Sp. Gr. @ 250C	1.05-1.070
Non-volatile content	13.5-14.5%
pH value	9-13
Setting time, minutes	IS: 2645: 2003 30-600 min
Chloride content	IS: 2645: 2003 Max. 2.00%
Water permeability	IS: 2645: 2003 passes
Compressive strength N / mm2	IS: 2645: 2003 As per the standard

### **NEP PRO COAT-450**



Surface preparation & substrate condition

- Suitable epoxy primer, epoxy/ polyurethane undercoat; dry & free from all surface contamination. In case of aged epoxy coating, the surface should be sufficiently roughened prior to painting
- Substrate temperature should be at least  $3^{\circ}$ C above dew point but not above  $50^{\circ}$ C

#### **Application**

Application Method	Brush/ Roller	Air Spray	Airless Spray
Recommended thinner	D+ -749	D+ -794	
Volume of thinner	0-5%	5-10%	0-10%
Nozzle orifice	-	1.5mm - 3.00mm	0.28mm - 0.33mm
Nozzle Pressure	-	0.3-0.4 Mpa	10-13 Mpa
		(approx. 3-4 atm;	(approx. 100-300 atm;
		43-57 p.s.i.)	1400-1800 p.s.i.)

#### **Technical Information**

Туре	Two pack cured with aliphatic isocyanate	
Composition	Acrylic Polyol resin with isocyanate hardender	
	and suitably pigmented	
Colour	Various shade	
Volume Solids	Approx 45-50%	
Recommended DFT Coat	30-40 microns	
Theoretical covering capacity	110-120 sq.Ft./kg	
Dry time at 30°C	Surface Dry: 1 hrs.; Hard Dry: 16 hrs.	
	Full Cure: 7 days	
Over coating interval at 30°C	Min.: 24 hrs.; Max.: Unlimited, provided	
	surface is cleaned from all contamination	
Shelf Life (cool and dry place)	At least 12 months	

### **NEP Epoxy Injection Graut-407**



- Permanent bonding solution for concrete cracks.
- Repair of crack concrete areas in floors, walls, tanks & sea walls.
- Injection in to cracks & honey combing in concrete & masonry

#### **Advantages**

- Excellent bond to concrete substrate
- Low viscosity, Deep penetration
- Shrink Free
- Chemical Resistant
- Suitable for damp surface

#### Method of Application

- 1. Surface Preparation
- 2. Placing / Fixing of Nozzles
- 3. Mixing
- 4. Injection

#### **Technical Information**

Process	Unit Properties / Value
Mixing Ratio	w/w 100 : 50
Pot Life	minutes 50-60
Mix Viscosity @25°C	cPs 500-700
Specific gravity (mix)	- 1.05
Tensile strength (Al-Al)	Kg/cm <sup>2</sup> Min.100

### **NEP POLYSULPHIDE-409**



The product is suitable for sealing joints of followings:

- Precast elements
- External walls
- · Curtain walling and cladding
- Panel walls
- Window and door perimeter

#### **Advantages**

- Forms a tough, elastic, rubber-like seal
- Accommodates continuous and pronounced cyclic movement
- · Excellent adhesion to most common substrates, including primed concrete, glass, aluminium and stainless steel
- High resistance to ageing reduces physical damage due to climatic extremes

#### **Technical Information**

Properties	Results
Colour	Grey paste
Specific gravity	1.75 to 1.80
Pot life	2 hours @ 20°C
Minimum application temperature	$-20^{\circ}$ C to $+60^{\circ}$ C
PH	7 to 8
Solid content	100%
Density	1.62 Kg/lit
Flammability	Does not support radially combustion
Chemical resistance	Yes

### **NEP SEALANT PU-410**



The product is suitable for sealing joints of followings:

- Precast elements
- External walling
- Curtain walling and cladding
- Panel walls
- Window and door perimeter

#### **Advantages**

- Reduces the possibility of applicator error and possible joint failure
- Excellent thixotropic property non-sag
- Elastic low modulus
- Pitch-free over paintable
- Movement capability 25%
- Bubble-free curing, no weak areas for air bubbles to develop
- Excellent resistance to weathering
- Very good adhesion to most construction materials especially concrete without the need of primer
- Permanently elastic over a wide range of temperatures

#### **Technical Information**

Properties	Results
Colour	Grey & white
Specific weight	1.42 to 1.50gm/cc
Tensile strength	15 N/mm <sup>2</sup>
Minimum application temperature	5°C to 35°C
PH	7 to 8

### **NEP HOMESTAR BS-250**



#### **Application Area**

NEP HOMESTAR BS-250 is a water resistant white cement based putty which provides a strong base on concrete/mortar walls (Internal and External) and ceilings. It is applied before painting of the wall. It fills the fine pores of the walls and ceilings, thereby providing a white, smooth and dry surface for painting. Being water resistant it provides a protective base which prevents expensive paint from flaking. NEP HOMESTAR BS-250 has special added polymers and more adhesive strength which provides a strong base ensuring a longer life for the painted surface. It does not require water curing and it can even be applied on freshly plastered wall thus resulting in savings of time and cost. During repainting, the surface done up with NEP HOMESTAR BS-250 requires minimum scrubbing thus eliminating the mess of dust, which is a health hazard especially for asthmatic patients. Its superior quality makes it the first putty in India to meet the global standards.

#### **Benefits**

- Being a cementitious material it has better adhesiveness and durability with the concrete walls.
- Doesn't need any kind of primer on it before application of paint/distemper thus saving time &
- Can be applied on both interior and exterior walls & ceilings.
- Gives a smooth, white & glossy finish surface, which effectively reduces the consumption of subsequent Paints & gives true tone of colour. It is in dry powder form and does not produce any kind of unpleasant smell at the time of application.
- It is Eco-Friendly. It does not contain lead, oil or toxic material.
- Has anti-carbonation properties thus protects the reinforcement bars from corrosion.
- Does not require any water curing after application thus saving time & cost.
- Is water resistant and can be applied on moist surfaces.
- Accepts any kind of paint or distemper application on it.
- Can be applied on used surface after proper preparation.
- It prevents the growth of algae and fungi on walls.

#### **Application**

#### **Surface Preparation**

Before applying NEP HOMESTAR BS-250 remove all loosely adhering material from the wall surface with the help of sand paper, putty blade or wire brush. The substrate should be clean, free from dust, grease and loose materials. Moisten the wall with sufficient quantity of clean water.

#### Mixing of NEP HOMESTAR BS-

Mix NEP HOMESTAR BS 250 with 36-40% clean water slowly to make a paste. It is very important that water be added to putty to make a mix and not vice versa. Continue the mixing for 10-15 minutes till a uniform paste is formed. It is very important that the mixing of NEP HOMESTAR BS-250 should be done thoroughly preferably with mechanical mixer. This will help in easy application, obtaining more coverage and smooth uniform shade. Only prepare a quantity which can be used within 2-3 hours of mixing with water.

#### **Pre-wetting of the Substrate**

It is very important and essential that the surface is wet thoroughly before the application of NEP HOMESTAR BS-250 The surface should be wet during application. This ensures higher bonding strength, easy workability & higher coverage with the surface.

#### Application of NEP HOMESTAR BS-250 on the surface

After thoroughly mixing NEP HOMESTAR BS-250, apply the first coat on the moistened wall surface from bottom to upward direction uniformly with the aid of putty blade. This would ensure minimum wastage and proper finish. After drying of first coat of putty just rub the surface gently with wet sponge or very gently with the putty blade in order to remove the loose particles. Allow the surface to dry for atleast 3 hours and then apply second coat of putty. Leave the surface to dry completely. After drying of second coat remove any type of marks with the help of moist sponge or rub the surface very gently with the putty blade.

- Leave the surface to dry, preferably overnight / 10-12 hours.
- Always prepare a required quantity of putty and use it within 2-3 hrs of mixing with water.
- The total thickness of the coats should be limited to maximum 1.5 mm.
- It is not necessary to rub the surface done with NEP HOMESTAR BS-250. However, if at all there is a need to remove unevenness before applying any kind of paint/distemper, gently level the surface with very fine water proof emery paper of not less than 500 number to get a glossy white surface.

#### Precautions during application

- Mixing of the NEP HOMESTAR BS-250 is very important. Hence extreme care is to be taken for proper and thorough mixing. It should be preferably mixed with mechanical stirrer in order to get best results. Mixing is to be continued till a uniform paste is formed. It is very important that during mixing the required amount of water should be added incrementally to NEP HOMESTAR BS-250 and not vice-a-versa.
- It is recommended not to rub the surface done with NEP HOMESTAR BS-250 strongly and harshly with rough emery paper. This breaks the film formed over it which decreases the water repellency properties.
- In case of fresh concrete /mortar surface it is recommended that two coats of NEP HOMESTAR BS-250 wash be done before application of NEP HOMESTAR BS-250

#### **Technical Information**

Properties	Unit	Specification	Test Method
Tensile Adhesion Strength@ 28 days	N/mm²	≥ 1.0	EN 1348
Compressive Strength @ 28 days	N/mm²	3.5-7.5	EN 1015-11
Setting time* - Initial Final	min	≥100	EN 196
		≤ 500	
Water Absorption @28 days for 24 hrs.	ml	≤ 0.1	DIN 52617
Water Absorption Coefficient	kg/m².h%		
Water Retencity	%	≥ 98	DIN 18555-7

#### Coverage

The coverage area of NEP HOMESTAR BS-250 on smooth normal mortar wall is 1.5 to 2.0 in two coats. The coverage area, however, will depend upon the nature of the substrate.

#### Note

Generally the cause of efflorescence on the wall surface is the brick masonry, which is due to the quality of bricks, sand and water. If the effect of efflorescence is very high on the brick masonry then proper care should be taken to control the efflorescence. The efflorescence on brick masonry if allowed to exist will impair the bonding of the NEP HOMESTAR BS-250 as is with any other product.

#### Storage

NEP HOMESTAR BS-250 should be stored in a dry place. For best results use it within 6 months from date of manufacture.

#### **Precautions during usage**

- Though it contains non-toxic materials but still care should be taken to avoid dust inhalation while mixing and handling. In case of contact with eyes or mouth, wash with plenty of clean water.
- Keep it in a dry place and out of reach of children.
- Persons who are allergic to cement/cement products should take proper precautions before use.

#### **NEP PLAST 222**



#### **Application Area**

Ready to use grey cement based non-shrink, self- curing mortar for fixing AAC blocks, Concrete blocks, fly ash bricks etc..

#### **Benefits**

- Increased setting time in hot weather
- Increased ultimate strengths
- Better surface finish

#### Uses

- Large volume pours
- Avoiding of cold joints
- Difficult placing conditions
- Revibrated concrete

- Accelerated hardening after setting
- Long lasting control over slump loss.
- Chloride free: does not attack reinforcement
- · Long haul
- Construction joints
- Elevated temperature
- Ready mix concrete

#### **Application**

#### **Surface Preparation**

Before applying NEP HOMESTAR BS-248 remove all loosely adhering material from the wall surface with the help of sand paper, putty blade or wire brush. The substrate should be clean, free from dust, grease and loose materials. Moisten the wall with sufficient quantity of clean water.

#### **Technical Information**

Process	Unit Properties / Value
Chemical Base	Poly hydroxyl compound
Packaging	25 kg / Bulk supply
Appearance / Colour	Pink Colour Liquid
Shelf Life	12 months from date of production if stored properly in
	undamaged unopened, original sealed packaging.
Storage Conditions	Store in dry conditions at temperatures between +10°C and
	+40°C. Protect from direct sunlight and frost.
Density	~1.11 kg/l at 25°C
pH-Value	≥6

#### Uses

Water: Powder = 0.22 to 0.24 by weight (6.61 to 7.21 water per 30 kg bag).

Mixing Time: 3 minutes minimum

#### **Application**

NEP PLAST 222™ Block Joining Mortar must be mechanically mixed using a forced action mixer or in a clean container using a drill and mixing paddle (< 500 rpm). A normal concrete mixer is not suitable. Mix thoroughly with clean water for a minimum of 3 minutes. Leave material to stand in container until the majority of bubbles have dispersed (minimum 5 minutes). Then remix the material for 15 seconds - the product is now ready for use.

If the substrate is very porous, if the temperature is high and/or the relative humidity low, it is advisable to dampen the surface. Do not leave any standing water.

Apply a thin uniform Layer of NEP PLAST 222<sup>™</sup> Block Joining Mortar 2 to 3 mm thick on the clean & levelled surface of masonry units using proper trowel Place the next course of masonry units on evenly jointing mortar bed in proper line & level. Each masonry unit shall be properly bedded and set in position by gently pressing with handle of trowel.

Inside unit of the masonry unit shall be applied with mortar before the next unit is laid & pressed against it especially in case of bricks.

Clean the excess material, if any immediately. Continue the procedure for the entire masonry work. Do not disturb the blocks /bricks setting for first 24 hours.

#### Limitations

Cementitious substrates must be at least 28 days old. Do not exceed the recommended water dosage. Apply only to sound, prepared substrates. Do not exceed the maximum layer thickness. Protect freshly applied material from freezing and rain etc.

#### **Basis Data**

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

#### **Local Restrictions**

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

#### Safety

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety related data.

#### Information

The information, and, in particular, the recommendations relating to the application and end-use of Nepcco products, are given in good faith based on Nepcco's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Nepcco's recommendations.

In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Nepcco reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

### **NEP PLAST BS-555**



#### **Basic Details**

Lafarge Super White is a high early strength 52, 5R cement in a bright white colour designed for an attractive finish.

#### Features

- Bright white colour provides attractive, light coloured natural looking concrete
- Can be used for traditional nominal mixes for all general application
- Does not contain any pigments
- Compatible with all standard admixtures
- Used in exactly the same way as grey Portland cement and can be used with coloured pigments as required

#### **Applications**

Ideal for applications that require an aesthetic finish, including:

- Cast stone
- Architectural precast concrete
- Paving slabs
- Street furniture
- Terrazzo flooring

#### Storage

This product must be stored in unopened bags clear of the ground. This product naturally contains less than 2ppm Cr VI+ and therefore there is no maximum shelf life for safety purposes.

#### Uses

- Super White cement may be used in the range of traditional nominal mixes as for traditional Portland cement.
- To achieve optimum performance, it is essential that Lafarge Super White cement is correctly specified and used.
- As with other cements in building work, there is no substitute for good site practice. It is essential to use the correct materials, proportion and mix the materials properly, add the correct amount of water, compact, cure and protect as appropriate.
- Normal hot and cold weather practice should also be followed.

- The final strength and finish of this product will depend on the user having the necessary skills and knowledge of the product and its application.
- Lafarge cannot be held responsible where workmanship has not been carried out in accordance with good practice.
- Manual handling should comply with The Manual Handling Operations Regulations 1992.
- Super White cement is manufactured from natural products, therefore slight shade variations may occur.

#### **Safety Option**

Contact between cement powder and body fluids (e.g. eye fluids) may cause irritation, dermatitis or burns. Cement is classified as an irritant under the Chemicals (Hazard information and Packaging) Regulations. Please refer to the product safety data sheet for full information.

Coming Soon





## NEPCCO INDIA

AN ISO 9001: 2015 Certified Company

QUALITY CONSULTANCY COMPANY

### **Manufactured & Trading NEPCCO INDIA**

E-web: www.nepcco.in E-mail: info@nepcoo.in Mob.: +91-9773716531





#### India Office

278, Site-1, Gurudwara, Near Vikaspuri, New Delhi-18 E-mail: info@nepcco.in

### **Nepal Office**

Village-Bashkheda Geta Ward No-11 Sub Metropolitan City, Dhangadhi, Kailali E-mail: info@nepcco.in