

NIPPOGARD BASEFLEX PRE1200 PLUS (formerly known as Nippon SM PRE1200)

Updated Nov'22

DESCRIPTION

NIPPOGARD BASEFLEX PRE1200 PLUS is a pre-applied, multilayer composite membrane comprised of strong high-density polyethylene (HDPE) waterproofing membrane with UV coating layer and premium quality pressure sensitive adhesive that bonds integrally to poured concrete for use to protect structures below ground from water ingress, corrosive soil, gas and moisture. The specially developed adhesive layer can keep continuous bond to post-poured concrete, and thus provide robust barrier to prevent both ingress and lateral migration of water. Selvedge overlaps deliver superior performance in harsh conditions without the need for sophisticated equipment, heat or power.

USES

NIPPOGARD BASEFLEX PRE1200 PLUS is suitable for below ground structure such as:

- Municipal construction, commercial and residential building basement slab and retaining wall waterproofing with ballasted method
- Utility tunnel or culvert waterproofing
- Metro underground station
- Open-cut excavation structure

ADVANTAGES

- Anti-water tracking, where the unique continuous adhesive fully bond to post-poured concrete prevent it from water migration, lateral tracking and makes it unaffected by ground settlement beneath slabs.
- Watertight seams with easy detail
- Application does not affect by weather and damp surface, and hold significant
- NIPPOGARD BASEFLEX SERIES (HD) application advantages during raining season or catch the deadline.
- Safe time and cost: -does not require primer, fillets, base screed and protective screed
- Eco-friendly system with fast Installation
- Can be applied to permanent formwork
- Excellent weather resistance and anti-aging
- As chemical barrier to water, soil chemicals, alkali, moisture and gases
- Self-protecting: - can be trafficable immediately after installation and ready for immediate direct placing of concrete
- High mechanical performance
- Excellent impact and puncture resistances
- Excellent low-temperature flexibility and bending

Product Type	Product	Pack Size	Finishing	Standard Color	Substrate
Sheet Form Membrane (Pre-applied)	NIPPOGARD BASEFLEX PRE1200 PLUS	36m ² /Roll	Top – PET/PE Bottom - HDPE	White	Concrete

Application Data

Application Temperature	: 5°C to 45°C
Theoretical Coverage	: 36m ²
Special Notes	: 1. Do not apply the membrane on standing water wet concretes. : 2. Overlap joint will be sealed by NIPPON PAINT T-BUTYL TAPE when long term exposed under sun, unless concrete is poured immediately. : 3. Overlap joint will be sealed during rainy season or avoid immersion.

Typical Technical Data

Top Surface	: PET/PE release film
Bottom Surface	: Milky white HDPE membrane
Side lap joint (mm)	: 75
End lap joint (mm)	: 100

Thickness, mm (ASTM D3767)	: 1.2 (-5/ +10%)
Width, m (EN 1848-2)	: 1.2m (-0.5/ +1%)
Length, m (EN 1848-2)	: 30m (-0.5/ +2%)
Tensile Strength, MPa (ASTM D412-13)	: ≥ 29
Elongation at break, % (ASTM D412-13)	: ≥ 500
Puncture resistance, N (ASTM E154)	: ≥ 1000
Peel adhesive to concrete, N/m (ASTM D903)	: ≥ 880
Hydrostatic head resistance, m (ASTM D5358)	: ≥ 70
Dimensional stability, % (ASTM D836)	: ≤ 1.0
Cold flexibility, °C (ASTM D1970)	: -25

**All values given are subject to -5 to +10% tolerance*

Application Method

Substrate Preparation

It is essential to create sound, compacted, and solid substrate to eliminate movement during the concrete pour. The substrates must be regular smooth with no gaps or voids greater than 12mm. Grout around all penetrations such as utility conduits and etc for stability.

Horizontal- The substrate must be free of loose aggregate and sharp protrusions. Avoid curved or rounded substrates. When installing over earth or crushed stone, ensure substrate is well compacted to avoid displacement of substrate due to traffic or concrete pour. The substrate does not need to be dry, but standing water must be avoided.

Vertical-Use concrete, plywood, insulation or other approved facing to sheet piling to provide support to the membrane.

Installation

NIPPOGARD BASEFLEX PRE1200 PLUS is supplied at 1.2m wide with a selvedge on one side to provide self-adhered laps for continuity between rolls. The plastic release liner must be removed before placing reinforcement and concrete pour, as well as before application of any required **NippoGARD BASEFLEX HD** tapes and at all surfaces where a bond between layers is to be formed.

Place the membrane with the plastic release liner and adhesive side facing the concrete pour and HDPE film side facing the substrate. End Laps should be staggered. Leave release liner in position until overlap is completed. When completed, remove the release liner.

Overlap all roll ends and cut edges by minimum 75mm and ensure the area is clean and free from contamination, wiping with a damp cloth if necessary. Allow surface to dry and apply **NIPPON PAINT T-BUTYL TAPE** centered over the lap edges and roll firmly with a heavy roller. Immediately remove the plastic release liner from the Tape.

NippoGARD BASEFLEX HD membrane can be applied vertically to permanent formwork or adjoining structures. Concrete should then be cast directly against the adhesive side of the membrane. The release liner must be facing towards the concrete pour. Membrane must be single overlapped a minimum of 75mm. All laps over cut edges must be taped using **NIPPON PAINT T-BUTYL TAPE**.

It can be held in place vertically using fasteners appropriate to the substrate. Fastening can be made through the selvedge overlap area using small and low-profile head fastener. Fasteners should be placed in the selvedge approximately 12.5mm from the edge of the membrane. The adhesive selvedge of successive membrane must completely cover any fasteners by minimum 25mm. After rolling immediately remove the plastic liner.

When placing successive sheets of membrane, ensure the underside of each succeeding sheet is clean, dry, and free from contamination before attempting to overlap. After placement roll the membrane firmly to ensure watertight seal.

Pouring of concrete

Ensure the liner is removed from all areas of membrane and tape. Under tropical climate where ambient temperatures will exceed 38C for more than a total of 7 days, the concrete should be poured within 20 days of membrane installation. Concrete must be placed and compacted carefully to avoid damage to the membrane. Never use a sharp object to consolidate the concrete.

Recommended Waterproofing System**Concrete Substrate (Exposed roof)**

Waterproofing : **NIPPOGARD BASEFLEX PRE1200 PLUS** : 1 layer (1.2mm thickness)

Environmental Conditions During Application

- Apply temperature: 5-40°C. Do not apply when the surface to be coated is less than 3°C above the dew point.
- The humidity for application is 30-80%
- It is designed for damp substrate construction but no water on the surface of substrate
- The overlap area will be sealed by **NIPPON PAINT T-BUTYL TAPE** when long term exposed under the sun, unless concrete poured immediately.
- Overlap area will be sealed during rainy season or water pour out when application, avoid immersion.

Storage and Transportation

This product should be stored horizontally in a shaded or cool and adequate ventilation warehouse. Do not stack pallets on top of each other. The storage temperature should be 15-35°C. This product should be covered or away exposure from rain, UV, sunlight, cold or moisture, source of flame and heat. When transporting, care must be taken. It is always kept membrane in a secure horizontal position. Failure to comply with the recommended storage may result in considerable premature deterioration of the product. This product does not expire if correctly stored.

Cleaning

Clean up equipment or tools with thinner immediately after use.

Safety Precautions

- Keep membrane tightly closed and upright, and keep out of reach children or away from food and drink.
- Ensure good ventilation during installation.
- Always use protective hand gloves when handling or applying the product.
- When applying, it is advisable to wear eye protection.
- Dispose off any waste in accordance with the appropriate Environment Quality Regulations.

Note

The above information is given to the best of our knowledge based on laboratory tests and practical experience. However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself. we reserve the right to alter the given without prior notice.