SELFSEAL HDPE 120 SC

PRE-APPLIED, FULLY BONDED HDPE WATERPROOFING MEMBRANE WITH SAND FINISH

hahne SelfSeal HDPE 120 SC is a high-performance, pre-applied waterproofing membrane comprising a high-density polyethylene (HDPE) film, pressure-sensitive adhesive layer and a reactive inorganic sand-coated surface. The membrane is designed to form a strong and continuous bond with poured concrete, providing reliable protection against water ingress and lateral water migration.

Its high tensile strength, exceptional elongation, puncture resistance and resistance to hydrostatic pressure make it suitable for waterproofing below-ground and other demanding concrete structures. The pre-applied adhesive system enables fast and convenient installation.

PRODUCT INFORMATION

Area of Applications

- Basement and below-ground waterproofing.
- Waterproofing below raft foundations.
- Retaining walls and blind-side waterproofing.
- RCC podiums and car parks.
- Underground concrete structures.
- Cut-and-cover tunnels, subways, underpasses, roads and bridges.
- Underground metro structures.
- Structures exposed to hydrostatic pressure

Features and Benefits

- Pre-applied and fully bonded waterproofing system forms a continuous bond with poured concrete.
- Self-adhesive technology enables fast and efficient installation.
- Excellent resistance to water ingress and lateral water migration.
- High tensile strength and exceptional elongation for accommodating substrate movement.
- Outstanding puncture resistance for enhanced durability during construction.
- High peel adhesion to concrete and strong lap adhesion at joints.
- High resistance to hydrostatic pressure.
- Consistent factory-controlled thickness.
- Retention of 90% tensile and elongation properties after 45 days UV exposure.

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TECHNICAL SPECIFICATIONS

Property	Test Method	Result
Composite Thickness	ASTM D3767:2003	1.2 mm
Pure HDPE Thickness	ASTM D3767:2003	0.9 mm
Tensile Strength – Longitudinal	ASTM D412:2016	25 N/mm²
Tensile Strength – Transverse	ASTM D412:2016	25 N/mm²
Elongation at Break – Longitudinal	ASTM D412:2016	500 %
Elongation at Break – Transverse	ASTM D412:2016	500 %
Puncture Resistance	ASTM E154:2008	1000 N
Low Temperature Flexibility at -25°C	ASTM D1970:2021	No Crack
Resistance to Hydrostatic Head up to 7 bar (71.4 m)	ASTM D5385:2025	No Leakage
Dimensional Stability – Longitudinal, 80°C / 24 h	ASTM D1204:2014	< 1 %
Dimensional Stability – Transverse, 80°C / 24 h	ASTM D1204:2014	< 1 %
Peel Adhesion to Concrete	ASTM D903:1998	1500 N/m
Lap Peel Adhesion	ASTM D1876:2008	1500 N/m
Lateral Water Migration up to 7 bar (71.4 m)	ASTM D5385:2025	No Leakage

APPLICATION PROCEDURE

Surface Preparation

- The substrate must be sound, stable, smooth and free from sharp projections, loose particles, oil, grease and other contaminants. Standing water should be removed before application.
- Remove sharp edges, protrusions and irregularities that may damage the membrane.
- Gaps, voids and major surface imperfections should be repaired before membrane installation.
- The substrate should be sufficiently stable to prevent movement of the membrane during subsequent reinforcement and concrete placement.

Laying of Membrane

- Roll out **hahne SelfSeal HDPE 120 SC** over the prepared substrate with the appropriate membrane face towards the substrate as specified in the approved method statement.
- Ensure the membrane is laid flat without wrinkles, folds or trapped air.
- Adjacent sheets shall be overlapped along the designated adhesive/sand-coated joint.
- Gradually remove the protective release liner from the adhesive area while pressing the membrane firmly onto the substrate.
- Use a suitable steel roller to ensure uniform contact and remove entrapped air.
- Ensure all laps are properly bonded and free from contamination.
- End laps and non-selvedge joints shall be treated using the approved jointing method.
- Protect the installed membrane from mechanical damage during reinforcement placement and subsequent construction activities.

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Detailing and Repairs

- All corners, penetrations, construction joints, terminations and changes in level must be treated in accordance with the approved waterproofing detail.
- Inspect the membrane after installation and again after reinforcement placement.
- Any puncture, cut or damaged area must be repaired using an appropriately sized membrane patch and approved compatible adhesive/tape system.
- Do not leave damaged or inadequately bonded areas untreated before concrete placement.

Concrete Placement

- Reinforcement shall be placed carefully to avoid damage to the membrane.
- The membrane should be inspected immediately before concrete placement.
- Concrete should be placed in accordance with good construction practice to avoid displacement or damage to the membrane.
- The membrane shall form a continuous bond with the poured concrete to provide protection against water ingress and lateral water migration.
- Concreting over the membrane is ideally recommended to be completed within 21 days of membrane installation. To retain at least 90% of the membrane's original mechanical properties, concreting shall be completed within a maximum period of 45 days from the date of membrane installation.

PACKAGING, STORAGE AND SAFETY

Packaging

- **hahne SelfSeal HDPE 120 SC** is supplied in rolls of 1.2 m / 1.5 m width and 20 m length, subject to standard packing configuration.

Storage and Shelf Life

- Store rolls in a clean and dry area in their original packaging.
- Protect from direct sunlight, moisture, chemicals, ignition sources and physical damage.
- Exercise care during lifting, transportation and handling to prevent puncturing, tearing or deformation.
- Do not place sharp or heavy objects directly on the rolls.

Safety Instructions

- Wear suitable protective clothing, gloves and eye protection during handling and installation.
- Avoid unnecessary contact with the adhesive layer.
- Ensure adequate precautions are taken during cutting, handling and installation.
- Refer to the relevant Safety Data Sheet before use.