



## Protan InfraProof PC Geo 110 and 220

### Product Description:

The InfraProof PC Geo Membrane System consists of a special non-woven PP-Fleece, which is co-extruded with a highly flexible, water and gas resistant, soft PVC membrane. The fresh concrete forms a mechanical bond with the PP-Fleece and prevents water tracking between the membrane and the concrete. The InfraProof PC Geo Membrane System is new generation technology, it is specifically designed for the waterproofing and protection of below ground reinforced concrete.

### Application Areas:

InfraProof PC Geo may be used in all applications, where reinforced concrete structures must be protected against groundwater and contaminants. It is suitable for waterproofing of foundations, basements, tunnels, garages, and all other concrete constructions below grade. InfraProof PC Geo can be used in saline or alkaline environments due to its chemical resistance.

### How does InfraProof work?

The fresh concrete mechanical bonds to the PP-fleece of the InfraProof System creating a full and durable bond with the cured concrete. This self-adhesive bonding prevents any lateral water migration between the membrane and the cured concrete. InfraProof PC Geo is installed before the steel reinforcement is fixed and the concrete is poured.

### Characteristics / Benefits:

- InfraProof PC Geo Membrane System is proprietary, highly-flexible soft PVC composite waterproofing membrane which forms a permanent mechanical bond with freshly poured concrete
- Protection against lateral waterflow up to 6.0 bar
- May be used in salt-water areas to protect the concrete structure
- May be used as a supplementary method for high-quality use (A + to A +++) in WU constructions
- Used for water pressure-tight surface sealing of (WU) concrete structures
- External barrier, for the waterproofing and protection of floor slabs and exterior concrete wall surfaces against soil moisture
- Barrier against radon or radon gas
- Tough and resistant - fast and easy to install
- High compound shear strength
- Quality control (CE-Certification) / Several independent test reports
- Crack bridging in case of concrete cracks caused by strength and shrinkage
- Tested up to 6.9 bar
- Crack-bridging capacity up to 3.2 mm / 6.9 bar water pressure
- May be installed in all weather conditions / Working temperature between -5 °C and +50 °C
- No requirements for complicated welding equipment
- Lightweight and versatile- Easy on-site handling
- Membrane edge for overlapping
- Protects concrete against chemical, salt and sulphate attack

**Product properties**

Characteristic	InfraProof PC Geo		
Intended use	EN 13967 – Flexible membrane for waterproofing		
	Type A and Type T Waterproofing membrane with moisture barrier and groundwater barrier		
Material	Soft PVC membrane + PP nonwoven		
Visible defects	No visible defects	Passed	EN 1850-2
Straightness	75 mm / 10 m	Passed	EN 1848-2
Thickness	1,9	Mm	EN 1849-2
Watertightness against water	690 kPa	Tight	ASTM D 5386
	60 kPa / 24h; 500kPa / 72h		EN 1928 (B)
Durability against artificial aging	12 weeks / 70 °C; 60 kPa	Tight	EN 1296
			EN 1928 (B)
Durability against chemicals	28 d / +23 °C; 60 kPa / 24h	Tight	EN 1847
			EN 1928 (B)
Compatible with bitumen	60 kPa / 24h	Tight	EN 1548
			EN 1928 (B)
Watertightness in case of subsequent cracks	InfraProof mechanical bond with freshly poured concrete	Tight	ASTM D 5385
Tensile strength MD / CMD	≥ 500 / 500	N/50mm	EN ISO 12311-2 (A)
Shear resistance in the overlapping	Collapse outside of the overlapping		
	≥ 300	N/50mm	EN 12317-2
Resistance to impact	≥ 350	mm	EN 12691 (A)
Tear resistance MD / CMD	≥ 350 / 350 (Nail shank)	N	EN 12310-1
Resistance to static load	≥ 20kg / 24h	Passed	EN 12730 (A)
			EN 12730 (B)
Crack bridging ability	≥ 3,2 mm	Passed	ASTM D 5385
Reaction to fire	Class E		EN ISO 11925-2
	Class E		EN 13501-1

## PRODUCT DATA SHEET

### Dimensions / packaging

<b>Width:</b>	1.10m / 2.20m (-0.5% / +1%)	
<b>Length:</b>	25m	
<b>Roll weight:</b>	40kg / 79,5kg	
<b>Pallet:</b>	9 Rolls/Pallet	
<b>Thickness:</b>	1.9 mm	
<b>Colours:</b>	Topside: Light colours Available in different light colours	Backside: Black

### Substrate pretreatment

All surfaces onto which the InfraProof PC Geo Membrane is to be applied should be sound, solid and free from gaps or voids that are greater than 12mm. All corners, up-stands, pipe / service penetrations, etc. must be detailed correctly (please consult our Technical Department for further advice) prior to the application of the membrane.

InfraProof PC Geo Membrane is designed for use with structural reinforced concrete. The concrete should be designed by a Structural Engineer to EN 1992.

### Application of InfraProof PC Geo Membrane

InfraProof PC Geo should be placed onto the properly prepared substrate, with the PP-Fleece facing towards the concrete which is to be waterproofed. The edges of the membrane should be overlapped by a minimum of 50mm and the ends of the rolls staggered by a minimum of 300mm. All overlaps should be sealed using either an approved Protan adhesive, or by using suitable heat-welding equipment. The installed membrane should be inspected for damages prior to the placement of the concrete. In the unlikely event of damage occurring to the membrane, repairs may be completed by simply placing a patch of membrane over the damaged area and bonding with an approved Protan adhesive.

The installed membrane may be cleaned using a soft -brush or a low-pressure system using cold water if required. All standing water or any construction debris must be removed from the membrane prior to placing the concrete.

### Environment

Protan InfraProof PC Geo contains no substances which are listed on REACH/ ECHA's (European Chemicals Agency) candidate list. The membrane contains no priority environmental pollutants or other relevant substances in quantities considered to be hazardous to health and the environment.

### Form of Delivery and Storage

InfraProof PC Geo Membrane rolls are individually wrapped in foil.

InfraProof PC Geo Membrane should be stored in its original manufacturers. They should be kept dry and protected from direct sunlight, snow, ice, water, heat or heat sources. The storage temperature should be between + 5 ° C and + 30 ° C. Do not stack any sharp items or additional pallets on top the InfraProof PC Geo Membrane during transport and storage.

Please refer to the product label for production date and identification number. Minimum shelf life is 18 months from the date of production.

**Approvals:**

- CE Marking DIN EN 13967
- CE Marking DIN EN 13491
- In regarding to the German DIN 18195 Standard - new DIN 18533
- In regarding to the German DIN/TS 20000-202 approved
- General German Test Report / abP
- British standard BS 8102:2009 and Kiwa Certificate
- BDA Agrément Certification according to British standard BS 8102:2009 and NHBC

**Protan Legal Notice**

*The details provided in this document, especially the recommended application and utilisation for the products and their system accessories, are based on Protan's current knowledge and experience of the products when properly stored, handled and installed under normal conditions according to Protan's recommendations. A warranty in respect of merchantability or of fitness for a particular utilisation, nor any liability arising out of any legal relationship whatsoever, cannot be inferred either from this information, or from any written or verbal recommendations, due to the differences in materials, substrates and actual site conditions in practice. The user of the product is responsible for the product's suitability for the intended application. Protan reserves the right to change product specifications without notice. Additionally, Protan's current sales and delivery terms are valid and applicable for all orders. It is necessary for the user to always refer to the latest version of the relevant Product Data Sheet, which can be requested directly from Protan. All information provided, as well as technical and drawing data, complies with current technical standards and is based on Protan's knowledge and experience. In addition, national standards and regulations must be observed where appropriate.*