

# BASEMENT SYSTEM

[ Crystallization + Membrane ]



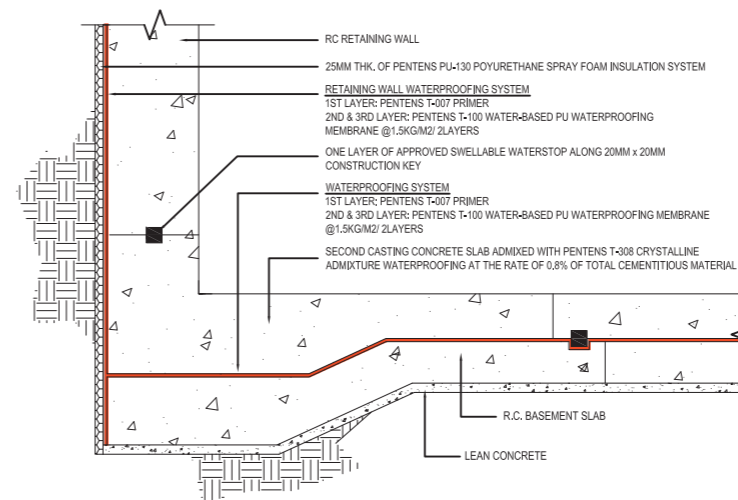
In basement construction, excellent waterproofing is essential and the necessary waterstops and membranes can be incorporated into the design. Double waterproofing system in basement become an alternative way for most architects and engineers as crystallization waterproofing limits to capillaries and minor shrinkage cracks up to 0.4mm. During construction, basement slab separate into two times casting, a layer of **PENTENS T-100** Water-based PU Waterproofing Membrane is applied after the first casting as it provide additional protection layer against water seepage from underground.

## Pentens T-100 Technical Data

Elongation ASTM D412-06ae2 (%)	Tensile Strength (kgf/cm <sup>2</sup> ) ASTM D 412-98	Tear Strength (kgf/cm <sup>2</sup> ) CNS 6986	Puncture (kgf) ASTM E154	Chemical Resistance 10% HCOOH, 600,24hrs
1128	20.90	11	1.6	No Changes on the surface of the sample

## Pentens T-100 Advantages :

- Low VOC.
- Environmentally friendly.
- Easy application.
- High elasticity.
- Superb adhesive strength.
- Can be applied directly on damp or wet surfaces.
- Suitable in hot and humid tropical climate.
- Resistant to bubbling or side osmosis.
- No phenomenon even submerges in water for a long time.
- Capable of re-application.
- Non-toxic.



## Green Waterproofing Application

Crystalline Waterproofing : Pentens T-308 (0.8%-1.0%)  
 Primer : Pentens T-007  
 1st Coat : Pentens T-100  
 2nd Coat : Pentens T-100

## PENTENS T-308 Crystalline Technical Data

Water Adsorption : <1.50%  
 Potable Condition : Complied  
 Water Permeability : 15mm  
 Chloride Content : Nil  
 Can Seal Hairline Cracks : up to 0.40mm



## Pentens T-308 Advantages :

- Low VOC.
- Environmentally friendly.
- It provides significant cost saving because it eliminates labour cost for the application process.
- Integral protection for the ENTIRE concrete.
- Permanent protection even if the surface is damaged.
- Can seal the capillaries and minor shrinkage cracks up to 0.4mm by crystal formation.
- Protection from any direction.
- Non-toxic.



## Pentens T-100 & Pentens T-308 Green Test Data

### Heavy Metals:

(EPA 3025 / EPA 6010B : ICP)

A. Cadmium (d)	Not Detected
B. Lead (Pd)	Not Detected
C. Total Chromium (Cr)	Not Detected
D. Mercury (Hg)	Not Detected

Volatile Organic Compounds (ISO 11890-2) (g/L)	0.53 (T-100) 1.21 (T-308)
--	------------------------------

Total Halogenated Organic Solvent (ISO 11890-2) (%)	Not Detected
---	--------------

Total Aromatic Organic Solvent (ISO 11890-2) (%)	Not Detected
--	--------------

Epichlorohydrin (ISO 11890-2) (%)	Not Detected
-----------------------------------	--------------

N-Methyl Pyrrolidinone (ISO 11890-2) (%)	Not Detected
--	--------------

Formaldehyde (High Performance Liquid Chromatography) (%)	Not Detected
---	--------------

Alkyl Phenol Ethoxylate (LCMS-MS) (%)	Not Detected
---------------------------------------	--------------

Flash Point (ASTM D3828-07a) (°C)	>61
-----------------------------------	-----