

MPSEAL I301pu

Flexible Low Viscosity Polyurethane Injection Resin

液態聚胺脂膨脹式注射劑 (俗稱三合土防水注射劑)

1.0 Description

MPSEAL-I301pu is single component polyurethane Injection Resin that reacts when it comes in contact with water and expands during curing to form flexible polyurethane foam. The system performs an immediate and effective barrier for water penetration through crack, joints and other leaks in all structure.

2.0 Technical Data

Base Polymer:	Hydrophilic Polyurethane Prepolymer Liquid		
Viscosity:	400(mPa.S.)		
Specific Gravity:	1.1 at 20° C		
Gel Time/Form/Ratio at Temperature :			<u>Foaming Ratio</u>
	10° C	60 Sec - Tacky Foam	3
	20° C	30 Sec - Highly Resistant foam	5
	30° C	20 Sec - Highly Resistant foam	6
Colour:	Brownish		
Storage Condition:	Unopened Pack and keep dry between 5° C - 23° C		
Shelf life:	6 month @23° C/50%/RH		

3.0 Typical Application

MPSEAL-I301pu can be injected directly into a leaking crack, fracture, joint to fill the void forming a tight, impermeable, elastomeric seal instantly stopping the water flow.

4.0 Application Details

Preparation

Step 1: Clean the surface

Clean away debris or old sealants and examine the crack to see where it goes. then lay out the drilling pattern for the injection holes.

Step 2: Set injectors in drilled holes

Drill next to the crack at 45 degree angle to the surface (ref diagram overleaf). Aim the bit so that the hole hits the crack near the centre of the wall; this will make the depth of the hole about 1/2 the thickness of the concrete. (MPNozzel A903 should be used in conjunction with either a manual or mechanical injectors)

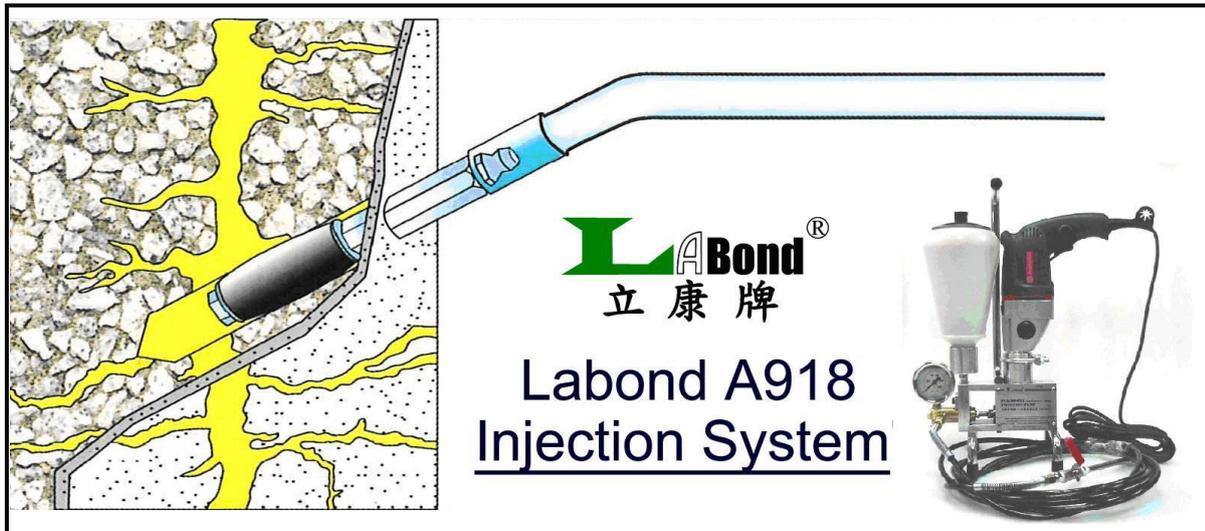
Step 3: Flush the crack

Start flushing at the lowest point on a vertical crack or at the narrowest end of a horizontal crack. As proceed from one injector to the next, flush water should flow from the crack face. If flush water does not flow into an injector, assume that the hole is blind. Remove the injector and plug the blind hole with quick-set cement.



5.0 Application Details

Job Diagram



6.0 Application

Load the pump with resin and charge the hose and gun.

Begin injection when ready. As grout begins to flow, observe the crack for resin escaping watch the hose for pulses dictating resin flow, and watch the gauge pressure in the crack.

Hold one hand on the grout house while pumping to feel how material is flowing. If resin flows out of the crack, stop for a few minutes. Resin will usually react with the flush water and provide a seal. In a few minutes, start to pump again. If too much resin still flows out of the crack, cover the crack surface with quick-set cement, allow it to set and pump again. Resin may still leak from pinholes in the cement, but most will be contained. A little leakage is relevant to shows the extent of resin travels.

Under normal conditions, water should be firstly displaced from the crack, by the resin, follow by foamy resin. Soon after that, pure resin will flow from the crack. Stop pumping when pure resin flows from the crack injector; move up, and begin pumping again. Continue from one injector to the next until the crack is completely filled.

7.0 Health and Safety

When handling the raw material and components, care should be taken to prevent the liquids from coming into contact with skin and the eyes. Avoid inhalation of their vapours.

8.0 Packaging

5kg/Drum, 25kg/Drum

MPSEAL - I301pu

Flexible Low Viscosity Polyurethane Injection Resin 液態聚胺脂膨脹式注射劑(俗稱石屎防水打針水)

1.0 簡介

MPSEAL-I301pu 是一種單組份聚胺脂樹脂注射劑。當它與水份接觸時會自動膨脹及凝固成一有彈性的膠體。這系統能針對石屎內裂痕引至的漏水問題作有效及即時解決。

2.0 技術資料

基礎聚合體成份	親水聚胺脂液態預聚物		
黏度	400(mPa.S.)		
絕對比重	1.100 (20 C°)		
Gel Time/Form/Ratio 溫度:	時間	型態	膨脹度
	10C°	60 秒 - 黏狀泡沫體	300 %
	20C°	30 秒 - 高抗水泡沫體	500 %
	30C°	20 秒 - 高抗水泡沫體	600 %
顏色	淺黃		
儲存環境	應用前不可開封，保持乾爽於 5° - 23° 之間		

3.0 一般應用範圍

MPSEAL-I301pu 是以直接注入石屎層而產生即時防水作用。對石屎“黃蜂巢”、伸縮裂痕等滲水問題提供有效解決方法。

4.0 應用步驟

施工準備

1. 清潔施工面

將施工面上污物及舊密封物料清除。觀察裂痕伸展情況以設計注射孔位置。

2. 在設計位置上沿鑽孔及放上針咀

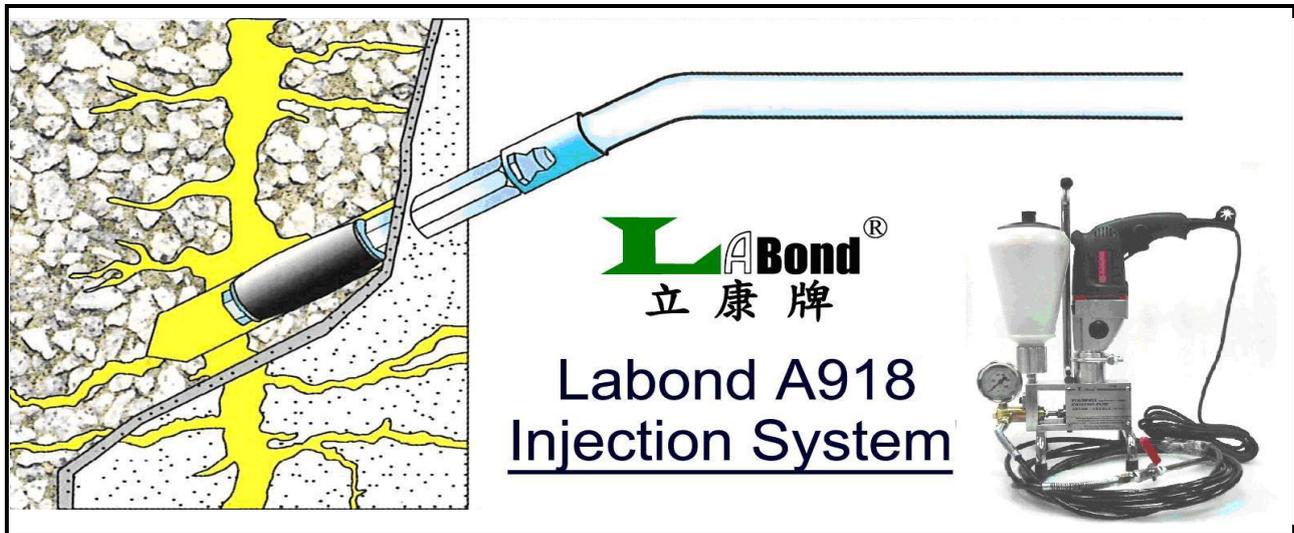
在裂縫附近從 45 度角(參考圖例)鑽開小孔，小孔深度應相等於牆身厚度一半。然後工具將針咀擠進孔內。針咀應採用 MPNOZZEL A903 或同規格型號。

3. 將裂縫灌水

如屬垂直裂痕，先從最底點開始。如屬橫向裂痕，先從最幼點開始。灌水步驟十分重要，不能忽略。先將泵機連接好針咀活塞部份，接駁水源後開啟泵機。所注水份會逐漸走通裂縫空隙並滲透出來。如所注水位置難以灌水，這應是一封閉式裂縫。這情況下，將針脫下再用快乾英泥將鑽孔封閉。

5.0 應用步驟

圖例



6.0 注射程序

先將泵機連接好針咀活塞部份，接駁注射劑後開啟泵機。(切記在先前灌水後，水份停留在泵機及喉管內，必須先天拿水清洗工具才可開始注射程序) 當注射進行中，可感覺到注射劑流動。施工員按著喉管與針咀接駁位置，留意泵機水壓變化。當發現注射劑從裂縫滲出，停止泵機 1 至 2 分鐘，讓已注入的注射劑與裂縫內水份有足夠時間產生化學膨脹作用。稍後可再啟動泵機，如仍有發現注射劑從裂縫滲出，可用快乾英泥將裂縫覆蓋後繼續施工。少量注射劑仍可能從石屎溢出，這種情況是可接受並可利用觀察注射劑流動情況。

在施工過程中，裂縫會依次序溢出水、注射劑、部分已膨脹的注射劑、最後是純注射劑。到此皆段可停止施工及到另一注射點從灌水步驟開始。

7.0 健康與安全

處理以上物料時，應避免皮膚及眼部直接與注射劑接觸或吸入其揮發物。

8.0 包裝

20 公斤/金屬桶， 25 公斤/金屬桶