

**USED FOR SEALING LEAKAGES STOP WATER-CUT OFF SYSTEM**  
**Modified Injection PU Resin Grout**  
**Specialist Design for Expansion Joint & Construction Joint**

<b>Expansion Joint Method</b>	<b>Install of “Seal Off Tube”</b>
<b>Cold Joint Method</b>	<b>Direct Injecting of Inject Seal Elastic Resin</b>
<b>Construction Joint Method</b>	<b>Direct Injecting of Inject Seal Elastic Resin</b>

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**USES** **INJECT SEAL ELASTIC** provides sealing leaking course to stop water. It can be inject direct to expansion joint or construction joint system at reinforced concrete structural of any thickness, for filling of large voids. Or to those cavity wall and slab where no damp proof course exists with has failed. For Water Reservoirs, Dams, Under Ground Basement Car Parks, Swimming Pools, Roof Slab, and Power Plants etc.

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- ADVANTAGES**
- Low Viscosity.
  - Very Soft Elastic Foam Once Expanding
  - Excellent Bond to Structures & Permanent Sealing.
  - Without Water – Inject Seal Elastic resin also will expand to elastomeric foam, because the liquid resin is reacts with airtight and it will slowly expand at internal of cracks area and totally sealing off

**FORM SUPPLIED** Solvent-free liquid, when the **Inject Seal Elastic** resin grout will start reacting water, rising damp or moisture; it comes to expand as polyurethane **soft elastic foam**. It's will also react with sea water to expand.

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**DESCRIPTION** **INJECT SEAL ELASTIC** ensures good penetration in capillary pores and a remarkable capacity to flow and adjust into remote cavities and cracks, so producing an absolute elastic seal. By virtue of its flexibility anchors itself firmly in micro cracks and is capable of bearing differential movements of considerable magnitudes. On account of the excellent bonding properties, it achieves optimal damp proof and high resistance against periodical water pressure.

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**APPLICATION** Drill 16mm diameter holes in the R.C Wall or Slab to predetermined depth and at 100mm -175mm, centers dependent on the thickness of wall or slab to be treated. Walls up to 3000mm thick can be treated from one side. Walls of greater thickness are treated from both sides or from one side by a series of injection at increasing depths. The holes should be drilled either horizontally into mortar bed joint to a depth of at least half but no more than two thirds the overall thickness of the wall, or at an angle of depression of 30 °C to 45 °C terminating in a mortar bed joint at the level of the required leaks or damp proof.

Inject the **INJECT SEAL ELASTIC** polyurethane resin grout solution at pressure of 1000 to 3000 psi. Packers insert and fitted with an expanding rubber into drilled holes and injection is continued until the required volume has been injected. The volume to be injected will depend on the thickness of the wall, but will be a minimum of an average of 1.15 – 2.30 kg per meter run of 25mm thick x 20mm width expansion joint wall and increased proportionately for thicker wall. Those areas have been treated must filling or patch back by cement grout at holes.

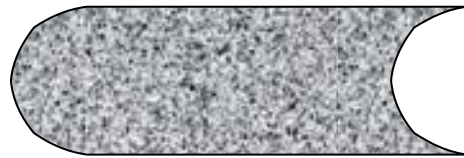
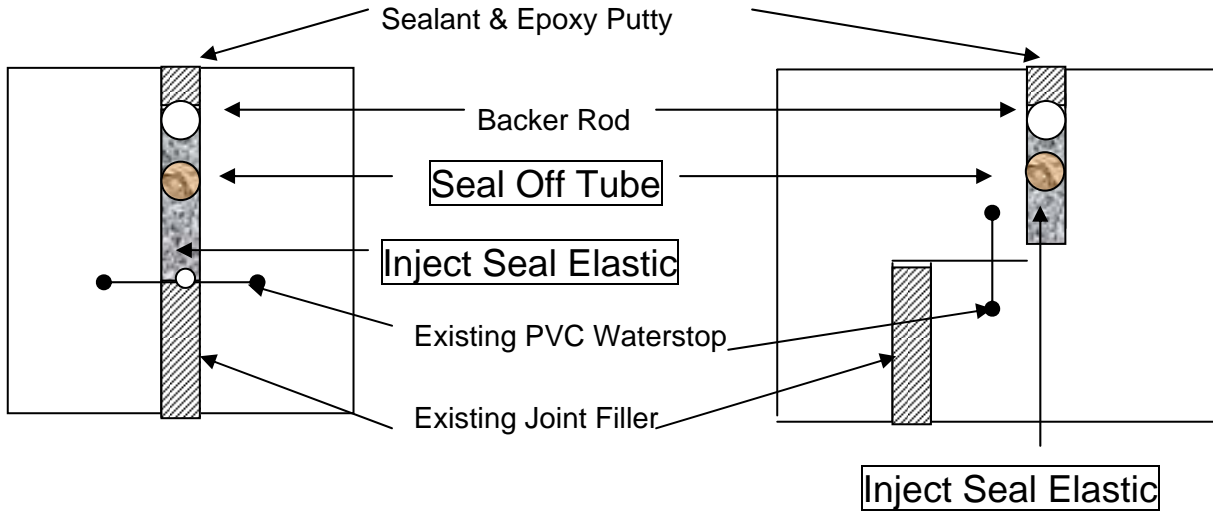
**DURING REACTION** It can penetrate into the void cracks line with width of 5 x 10 - 4 in.

**REACTION TIME** Depends on quantity of **INJECT SEAL ELASTIC** Resin Grout which water reacting. Mean for both have mixed up.

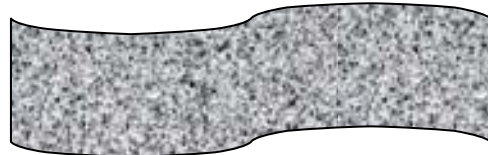
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- Remarks
- I) The Above Method Applied For Expansion Joint, Construction Joints and Cold Joints Only
  - II) For Expansion Joint Refer Below Method System



**Method Tested System: Bending for C to 180°**



**Method Tested System: Bending for S to 180°**

**Properties of Specification** *Cured Foam (Unconfined)*

<b>Bend Elongation</b>	Bending with 180° turning for S Bending with 180° turning for C, No Broken	
<b>Bonding Strength</b>	Excellent bond to structural	
<b>Elongation at Break</b>	Soft Elastic 112% [Special Grade for Expansion Joint]	
<b>Solid Volume</b>	98 %	
<b>Expanding Volume</b>	>200 % or >2 times	
<b>Viscosity</b>	<b>at 25 °C</b>	600 mPa.s [±55]
<b>Specific Gravity</b>	<b>at 25 °C</b>	1.09 g/cm <sup>3</sup> [±0.01]
<b>Pot Life</b>	<b>at 25 °C</b>	> 600 sec to 1800 sec
<b>Cure Time</b>	<b>at 25 °C</b>	As pot life test method 30-120 mins
<b>Flash Point</b>	> 200 °C	
<b>Tear Resistance</b>	Totally No Crack & Non of Crisp or Broken	
<b>Abrasion Resistance</b>	None	
<b>Fire Resistance</b>	Normal Gas °C Burning Test, Good Conditions of Class 0	
<b>Toxicity</b>	Essentially non-toxic in cured foam	
<b>Water Absorption</b>	0.1% to 2% depend of pressure capacity	
<b>Coverage Thickness</b>	No required	
<b>Consumption</b>	None	
<b>Stability under Heat</b>	Minimum: 40 °C	Maximum: 65 °C
<b>Glass Transition Temperature</b>	Minimum: 15°C	Maximum: 60 °C
<b>Application Temperature</b>	Minimum: 5 °C	Maximum: 40 °C
<b>Shore A Hardness</b>	Elastomeric Soft Rigid	
<b>Shore D Hardness</b>	Elastomeric Soft Rigid	
<b>Martens Dimensional</b>	None	
<b>Packing</b>	20 & 25kgpail	

## Cured Foam / Tack Free

The reaction and set time of Inject Seal ME PU resin, is a function of both temperature and the concentration of Catalyst 2KP Accelerator in the blend. The following table shows the effect of Catalyst 2KP at different weight percentages at a temperature of 25 °C

Tested Item	Inject Seal ME Ratio: pbw* %	Catalyst 2KP Ratio: pbw %	Tack Free Minutes
1	98.50%	1.50%	20.0
2	97.50%	2.50%	7.5
3	95.00%	5.00%	5.0
4	90.00%	10%	3.0
5	85.00%	15%	1.5

Note: pbw\* part by weight

### Handling Precautions

For Health, safety and Environmental Recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

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