

MrMason®

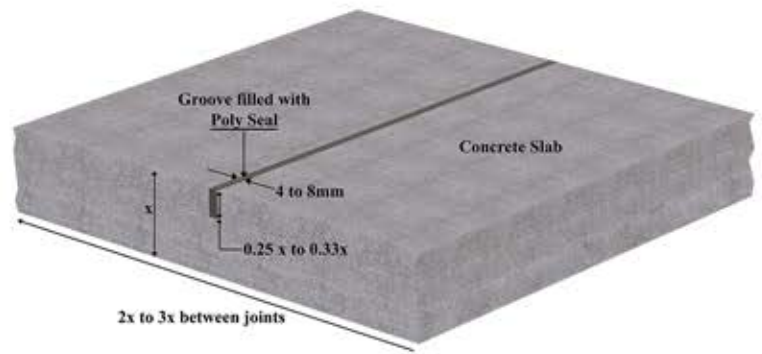
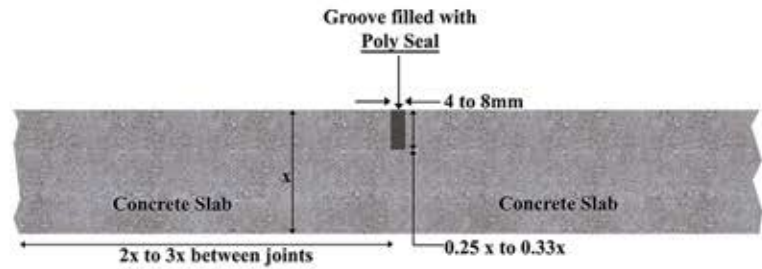
**Sealants and Repair Solutions
for Construction Joints**



Composite Repair of Concrete Joints

Concrete Control Joint

- Concrete control joints are intended to be cut on the first or second day following placement of the slab at either 25% or 33% percent depth (depending on the day cut). Their purpose is to “control” stress cracking in the slab as the concrete expands and contracts with changes in moisture and temperature.
- If desired, control joint filler can be installed. The joint filler is intended to give the concrete joints protection under weight and traffic.
- **PolySeal**, from RPPL's PUCRETE® family of hybrid PU systems, is used to fill-in Control Joints. **PolySeal** is a 3-part semi-rigid PU sealant system that cures quickly, reaches
- This type of concrete joint filler can be used in new construction in control joints or in the repair of existing concrete floors wear traffic is high and concrete joints need protection. When used in conjunction with polished concrete, joint filler is ground and polished smooth to provide a seamless floor that is not only protected, but easier to clean keeping debris out of the cracks.



PolySeal

PolySeal

PolySeal, a 3-part hybrid Polyurethane construction sealant, is supplied in pre-weighed kits consisting of:

Part A (Resin) 2.8 Kgs

Part B (Hardener) 3.0 Kgs

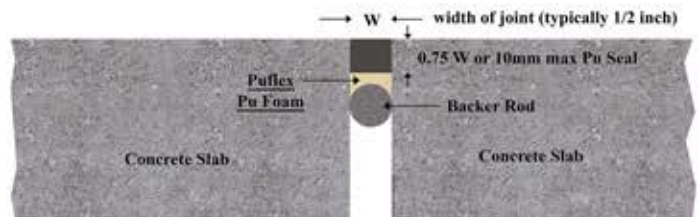
Part C (Aggregates) 4.1 Kgs / 9.1 Kgs (Depending on groove width/flow required)

The following technical data is of PolySeal samples cured for 7 days at ambient temperature, at an RH of 50%.

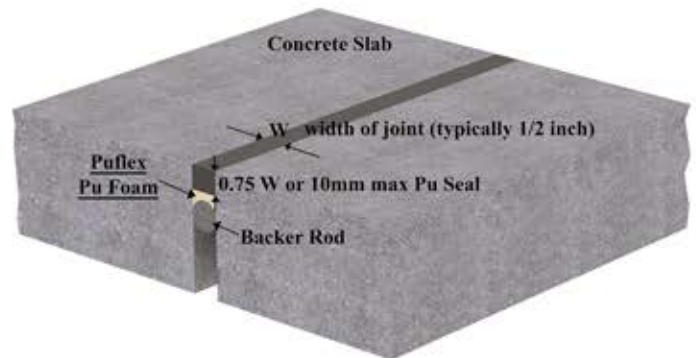
Density, gm/cc	2.15 +/- 0.1
Tensile Strength, N/mm ² ASTM D638	4.56
Compressive Strength, N/mm ² ASTM C39	41.4
Flexural strength, N/mm ² ASTM D6272	13.79
Bond Strength, N/mm ² ASTM C882	5.31
Abrasion Resistance, loss in mg/1000 cycles ASTM D 4060, 1kg load using CS17 wheel	25.1
Drop Impact Strength - First crack, Joule/m	16000
Drop Impact Strength - Ultimate failure, Joule/m	23500
Chemical Resistance ASTM D 1308	Passes

Concrete Expansion Joint

- The concrete expansion joint is visibly larger than the control joints and they allow for movement of the concrete slab due to vibration, settling, or temperature changes.
- If the expansion joint filler has cracked or broken away from one side of the joint it is considered a failure. Further, if the concrete joint filler has caused more concrete damage such as crumbling, cracked, or broken concrete at the joint, it needs concrete joint repair.



- The Expansion Joint Sealant is typically installed over backer rod or other foam inserts, it forms a bond on 2 sides only. The depth of the filler above the backer rod is typically $\frac{1}{2}$ of the width of the expansion joint. The Sealant is installed up-to $\frac{3}{8}$ inches deep. Any further depth (above the backer rod) if filled using a 1-component PU Foam.



- RPPL's Hybrid Expansion Joint Filler system is layered using PUFlex 1K foam and PolySeal PU-Sealant

PuFlex

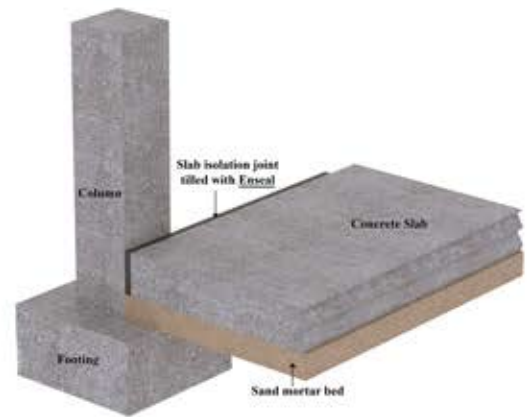
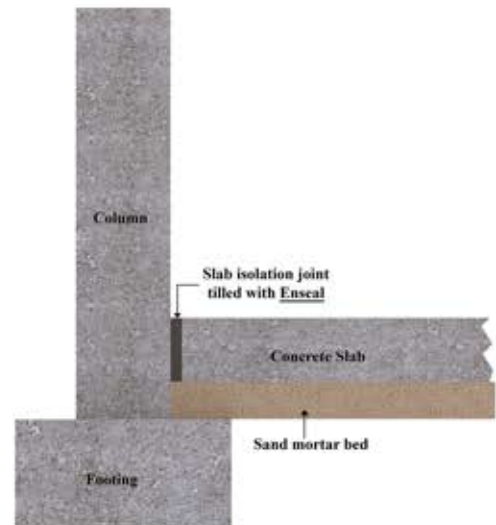
PuFlex is a one-component Polyurethane Foam, designed as an injectable sealant for construction joints and grooved. The Resin is moisture reactive and forms a closed-cell network when cured, to exhibit good bonding and a non-collapsible structure.

The following technical data is of PuFlex samples mixed with 10% water and cured for 7 days at ambient temperature, at an RH of 50%.

Density (Resin), gm/cc	1.1 +/- 0.05
Resin Viscosity (25OC), cps	1200 +/- 300
Nature of Foam	Rigid
Rise Time, secs	
Start =	180
Complete =	1500
Free Rise Density, kg/m ³ =	40-50
Inner Cell Size =	Fine, closely packed
Gel Time (25OC), minutes =	60

Concrete Isolation Joint

- Isolation joints have one very simple purpose—they completely isolate the slab from something else. That something else can be a wall or a column or a drain pipe.
- Walls and columns, which are on their own footings that are deeper than the slab subgrade, are not going to move the same way a slab does as it shrinks or expands from drying or temperature changes or as the subgrade compresses a little.
- If slabs are connected to walls or columns or pipes, as they contract or settle there will be restraint, which usually cracks the slab—although it could also damage pipes.
- The Sealant material used for an Isolation Joint should go all the way through the slab, starting at the subbase, but should not extend above the top. For a cleaner looking isolation joint, the top part of the preformed filler can be cut off and the space filled with elastomeric sealant.
- RPPL's **EnSeal**, a 2-component semi-rigid-elastomeric PU sealant, is used as a joint-sealant for such Isolation Joints.



Enseal

Enseal is a 2-component elastomeric PU sealant. The cured sealant is soft, flexible and possesses low viscosity to ensure penetration in construction joints.

The system is supplied in pre-weighed kits consisting of -

Part A (Resin) = 4.5 Kgs

Part B (Hardener) = 1.0 Kgs

The following technical data is of Enseal samples cured for 7 days at ambient temperature, at an RH of 50%.

Density, gm/cc	1.40 +/- 0.05
Mix Viscosity (35OC), cps	1200 +/- 300
Gel Time (25OC), minutes	60
Hardness, Shore A	85 +/- 5
Tensile Strength, N/mm ² ISO 527	13.0
Elongation at Break, % ISO 527	50%

For any further details, please contact us at -

Rand Polyproducts Pvt. Ltd.,
Gat No. 3a/2, Old Gat No. 1649,
Village Ghotawade Village, Tal. Mulshi,
Dist. Pune, PIN - 412 115.

Contact:
Sales/Admin 020-6790 8609/10
Technical 020-6790 8621

Email:
rand@randpoly.in