



## Technical Data

### HOT POURED JOINT SEALANT – B.S 2499 Type A2

#### Introduction

Liquafix-J is a polymer modified bitumen joint sealant for application in joints requiring a Movement Accommodation Factor of 12%.

Liquafix-J is a hot-poured joint sealant for horizontal joints on concrete floors, roads, runways and pavements, Liquafix-J offers good extension over a wide range of service temperatures with a high resistance to flow and excellent pourability at temperatures well below the maximum safe heating temperature. Because Liquafix-J is bitumen based with a high degree of flexibility, it is recommended to seal joints to bituminous roads, runways, play areas, etc. Complies with the requirements of BS2499 Type A2:1973. Liquafix-J is manufactured in Ireland by Irish Tar and Bitumen Suppliers.

#### Joint sealants

The principle of a joint sealant is to provide an effective seal against the ingress of water or other corrosive substances while providing sufficient flexibility to withstand the thermal movement of the surrounding surfaces throughout repeated cyclic movement.

In selecting the appropriate grade of sealant the design of the joint must be examined and the total thermal movement determined. Joint movement is normally expressed as a percentage of joint width (Movement Accommodation Factor).

The various international performance specifications set out movement requirements for each sealant grade, and the most suitable material may therefore be chosen.

#### Application

Application may be by hand or by machine. In general machine installed sealant i.e. pumped through a nozzle at a steady rate, produces a more even distribution of material, less wastage and hence a more successful result. The required machinery is relatively expensive and some contractors, farmers etc. carrying out a smaller work may find hand pouring more economical.

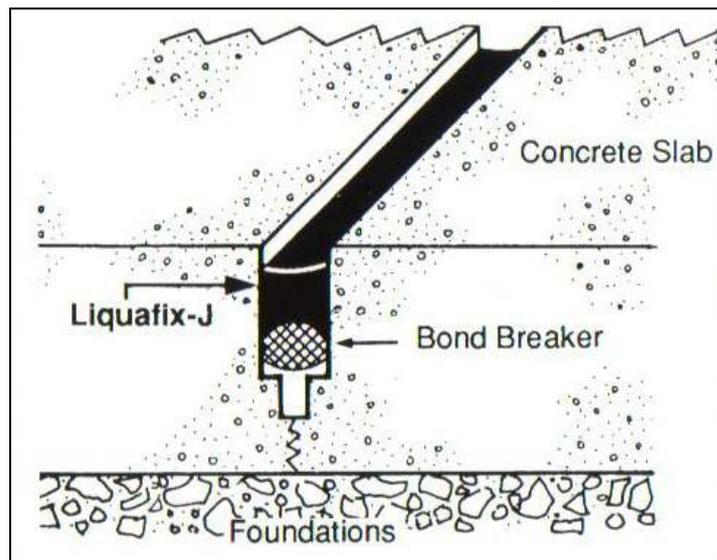
In either case careful preparation of the joints is vital to ensure adhesion. New concrete should be allowed to cure for 21 days and all dust, dirt, and moisture

removed from the joint by means of hot-compressed air and power brush where heavy deposits are present.

To comply with the requirements of BS2499, ASTM D3569 and other specifications, the faces of the joint should be primed with the primer recommended by the manufacturer. A key is thus provided to the faces and allowed to cure before application of the sealant. Liquafix-S, bituminous solution, as primer has been tested in conjunction with Liquafix-J and the combination has complied with BS2499.

The joints should be primed with Liquafix-S solution and allowed to cure before applying the sealant. An approved caulking or disbonding tape should be used. Adhesion of the sealant should be to the two vertical faces only to be effective.

In some cases where the joint faces have badly deteriorated the only successful method of preparation may be to re-cut the joint by means of a concrete saw or concrete router. The “new” joint should be cut back to sound concrete and then continue the preparation as outlined previously.



← Joint Width mm →

| 6  | 10 | 12 | 14 | 20 | 25 | mm |
|----|----|----|----|----|----|----|
| 27 | 16 | 14 | 12 | 8  | 7  | 6  |
| 16 | 10 | 8  | 7  | 5  | 4  | 10 |
| 14 | 8  | 7  | 6  | 4  | 3  | 12 |
|    | 7  | 6  | 5  | 4  | 3  | 14 |
|    |    | 4  | 4  | 2  | 2  | 20 |
|    |    |    | 3  | 2  | 2  | 25 |

↑ Joint Depth ↓

## **Approximate usage of Liquafix-J based on different joint sizes.**

**Note:** Figures in *italics* give metres of sealed joint per kilogramme of Liquafix-J. Each drum of Liquafix-J will seal 20 times the figures given. For example, a kilogramme of Liquafix-J will seal 6 metres of a 12mm wide x 14mm deep joint. The complete drum of Liquafix-J will seal 120 metres of this joint size.

Joints should be designed so that the total movement due to concrete shrinkage and thermal change does not exceed the Movement Accommodation Factor, which is expressed as a percentage of the minimum joint width.

All joints should be sealed typically 6mm below flush, but this should be varied dependent upon the time of year of application to ensure that the sealant does not protrude above the surface on joint contraction. Further to this, practical working tolerances should be permitted.

New concrete should be allowed to cure at least 21 days prior to joint sealing. The primer, Liquafix-S should be allowed to cure before the sealant is applied.