

Installation Guidelines

Hydrotite Plugs

Waterproofing thru tie holes

WATERPROOFING THRU TIE HOLES

Hydrotite is an expanding rubber sealing material used extensively throughout the construction industry for sealing horizontal and vertical construction joints for poured in-situ concrete.

Hydrotite consists of a black non-expansion chloroprene rubber co-extruded with a blue hydrophilic rubber which is capable of swelling by at least eight times by volume. Hydrotite has the ability to expand in the presence of water or moisture creating a pressure seal within the joint. The co-extruded design means that the expansion is directed across the joint for maximum sealing performance.

Hydrotite rods can be used for sealing off thru tie holes in various structures. This is achieved by locking in an expanding Hydrotite plug between a non-shrink grout/epoxy. The plastic conduit needs to be knocked out of the concrete wall, the Hydrotite rod is then cut into plugs approximately 40 mm long and placed in the middle of the wall. A 20 mm piece of closed cell backing rod is placed on both sides of the Hydrotite plug and then a non shrink grout/ epoxy is used to fill the remaining voids finishing flush with the concrete face.

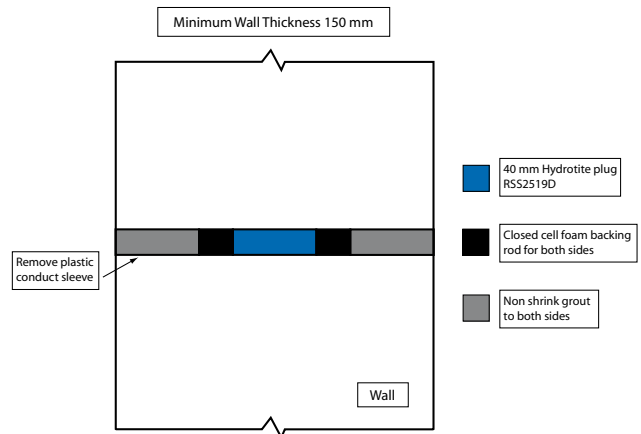
As the water comes into contact with the Hydrotite plug, the Hydrotite absorbs the water and starts expanding. The Hydrotite plug is now locked in between the non shrink grout/epoxy and as it expands against the wall of the structure it produces a self sealing pressure to shut off the water path.

Please take note that when the contractor is going to use Hydrotite plugs, you need to measure the thru tie hole with the conduit sleeve removed. The contractor can also measure the outside diameter conduit but must not measure the inside diameter of the conduit e.g. a 20 mm inside diameter conduit leaves a 25 mm outside diameter hole, so the actual plug size required is 25 mm.

Hydrotite rods are available in the following sizes: 10, 12, 16, 25, 30 mm.

INSTALLATION PROCEDURE FOR HYDROTITE PLUGS

- 1) Remove plastic conduit sleeve from inside of wall
- 2) Cut Hydrotite RSS Rod into plugs 40 mm long
- 3) Place Hydrotite plug into middle of wall
- 4) Place a 20 mm long piece of closed cell backing rod (33-35Kg/m³ density) to both sides of Hydrotite plug
- 5) Fill both sides of remaining holes using a good quality non-shrink grout /epoxy finishing flush with the concrete face



The above installation guidelines show the application of Hydrotite RSS2519D. If the contractor is going to use other size Hydrotite RRS plugs and closed cell backing rod should be the same diameter as the hole size with the conduit sleeve removed. Installation procedures would be the same as shown above.