



GREENSTREAK GROUP, INC.

X-Plug™

The Only Mechanical Plug for Taper Tie Voids



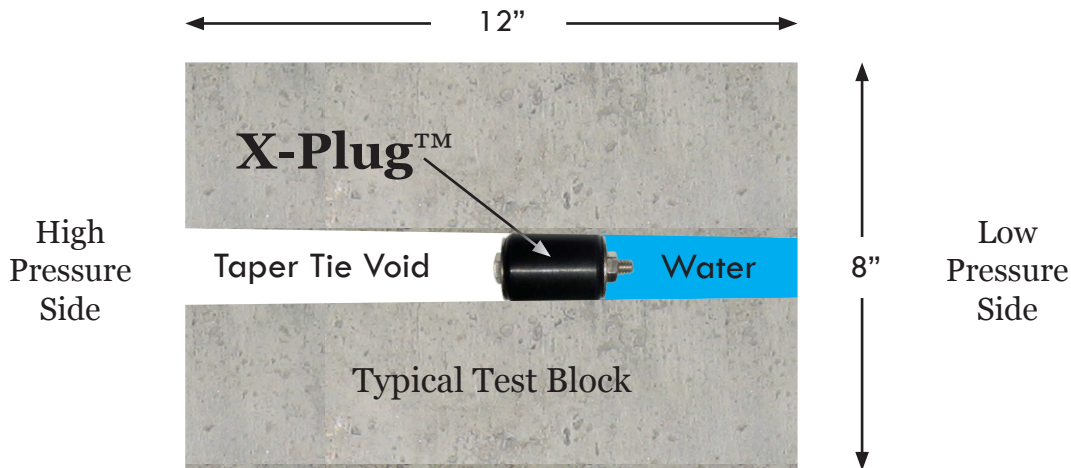
LOW PRESSURE SIDE X-PLUG TEST AND DATA

BACKGROUND:

Until now, product tests focused on the high pressure side of the X-Plug meaning that when properly installed, water pressure would “force” the X-Plug into the smaller diameter of the taper tie void. If an empty tank is below the water table, there may be hydrostatic pressure pushing against the low pressure side of the plug. The following test was performed to ensure a liquid-tight tie hole when water pressure was applied to the X-Plug from the low pressure side.

PROCEDURE:

An 8” x 8” x 12” long test block was poured with 4,000 psi concrete and two rows of reinforcing steel. For this low pressure side test, a taper tie was used running through the 12” dimension. A nipple was cast and anchored into the test block for pressure testing. After the concrete had set, the taper tie was removed from the test block and the block was cured for seven days prior to any testing.



An X-Plug was placed in the taper tie hole as shown in the diagram above and the X-Plug bolt was tightened to ~50 inch-pounds. Water was run through the system ensuring no air remained and then hydrostatic pressure was applied in 10 psi increments from 10 psi to 120 psi. Each pressure increment over 10 psi was maintained for a minimum of one half hour. Once 120 psi was reached, this pressure was held for over three days to ensure the X-Plug would hold under 120 psi of hydrostatic pressure.

X-Plug™ Low Pressure Side Test & Data

Code	Taper Tie Size	Pressure Time	Head Pressure	Results
XP001	1-1/4" to 1-1/2"	3 Days	277 ft.	No leaks
XP002	1" to 1-1/4"	3 Days	277 ft.	No leaks
XP003	3/4" to 1-1/4"	3 Days	277 ft.	No leaks
XP004	3/4" to 1"	3 Days	277 ft.	No leaks
XP005	5/8" to 7/8"	3 Days	277 ft.	No leaks
XP006	5/8" to 3/4"	3 Days	277 ft.	No leaks

TESTING RESULTS:

No leakage occurred after approximately one half hour of applied pressure at each increment of 10 psi up to 120 psi and held at a corresponding head pressure of 277 feet for over three days on the low pressure side of each plug.

Due to the large surface area at the end of the XP001 X-Plug, this is the worst case X-Plug testing scenario of all the available sizes.

Complete test results are available for individual sizes of X-Plug. Please consult a Greenstreak engineer for more information or technical assistance.



LIMITED WARRANTY: GREENSTREAK warrants to the Buyer that this product will be free of defects and will perform as represented in writing subject to the (2) following conditions:

First, the application of the product and the concrete construction practices used in the application are in accordance with GREENSTREAK'S Recommendations.

Second, the Buyer has selected the proper product for the specific application required. GREENSTREAK disclaims any responsibility for the selection of a particular X-Plug product. Product selection is the sole responsibility and decision of the buyer. The suitability of any material for a specific application requiring fluid resistance is best determined by specific testing for the application. GREENSTREAK urges the Buyer to conduct its own testing.

Any information supplied by GREENSTREAK with respect to its products is believed to be correct. GREENSTREAK makes no representations or warranties, express or implied, as to the accuracy or completeness of such information or the use of such information for a particular purpose.

Because GREENSTREAK has no control over either the application or the selection of its products, GREENSTREAK's Limited Warranty is as follows: The exclusive remedies of the Buyer and the limit of the liability of GREENSTREAK from any and all losses or damages resulting from the use of this product (including claims based on contract, negligence, strict liability, or otherwise) shall be either the full refund of the purchase price to Buyer of this product or the replacement of the quantity of product purchased by the Buyer - at the election of GREENSTREAK. In no event shall GREENSTREAK be liable for any incidental or consequential damages. The Buyer and all users of this product are deemed to have accepted the terms of this Limited Warranty which may not be varied in any way by any verbal or written agreement.



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07/10