

Alchatek

CASE STUDY
LEAK SEALING

DISCHARGE CONDUIT, PAT MAYSE DAM PARIS, TEXAS

Pat Mayse Dam *Conduit Leak Sealing*

Gerace Construction was contracted to repair and seal leaks in the discharge conduit at the Pat Mayse Dam, under USACE oversight requiring a manufacturer's representative on-site during grout injection.

INJECTION HOLE DEPTH
12 *in*

PRODUCT
Spetec F400

I · THE PROBLEM

01 What made this job *difficult.*

DISCHARGE CONDUIT, PAT MAYSE DAM
PARIS, TEXAS

The primary challenge was to stop active water leaks within the concrete conduit pipe. A site visit identified the locations of cracks and weeps, as documented in the photo report included in the specification. The photos showed typical leaking monolith joints on the sides and top of the structure, as well as leaking monolith cracks.

KEY CONDITION

These leaks required a solution that could effectively seal actively flowing water in both vertical and horizontal orientations.

THE CONSTRAINT

USACE oversight

MANUFACTURER'S REP REQUIRED ON-SITE

The U.S. Army Corps of Engineers required a qualified manufacturer's representative on-site during all grout injection, and the leaks had to be sealed against actively flowing water.

AT A GLANCE

12 in
DRILL HOLE DEPTH

45 degrees
DRILL ANGLE

02 What was specified, *and how it went in.*

SPETEC F400

Alchatek proposed the use of Spetec F400, a flexible polyurethane grout, to address the leaking cracks. The plan included supplying the necessary materials, equipment, and a qualified manufacturer's representative to supervise the installation.

THE MATERIAL

Spetec F400

FLEXIBLE POLYURETHANE GROUT

A flexible polyurethane grout used with Alchatek Gen Cat to control reaction time.

THE METHOD

01

Prepare

Injection ports were installed along the identified cracks and weeps in the concrete pipe; holes approximately 12 inches deep were drilled at a 45-degree angle.

02

Inject

Spetec F400, along with Alchatek Gen Cat, was injected through the installed packers using a suitable pump, beginning at the lowest packer for vertical joints or cracks and working upwards.

03

Finish

Re-injection was performed to ensure all voids were sealed, packers were re-injected with water, ports were removed and cut flush, and packer holes were filled with epoxy paste.

03 What the result was, *and what confirmed it.*

THE OUTCOME

The Alchatek solution, implemented by Gerace Construction, effectively sealed the cracks and stopped the leaks in the Pat Mayse Dam discharge conduit. The on-site presence of a qualified manufacturer's representative ensured the proper application of the product, meeting the requirements of the USACE.

THE OUTCOME

The project was completed in accordance with the specifications, resulting in a successful repair.

START THE CONVERSATION

Send us the job.
We will send back an approach.

Send us the soil report or the failure photos and Technical Services will return a written approach within two business days.

ALCHATEK TECHNICAL SERVICES

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Alchatek

Alchatek manufactures polyurethane resins, chemical grouts, and injection equipment for infrastructure repair: leak sealing, soil stabilization, concrete lifting, and seawall repair. Headquarters in Tucker, Georgia, with a bonded warehouse in Reno, Nevada.

Information in this document is believed accurate at the date of publication. Product performance depends on site conditions and application; consult the current Technical Data Sheet, which is the controlling document.