

Ceramic Tile combined with Super Wrap II

ID: 10152

Industry: Steel & Metal Processing

Customer Location: Decatur, AL

Application: VPF-Valves, Pipes and Fittings

Application Date: November 2025

Substrate: Carbon steel

Products: Belzona 1984, Belzona SuperWrap II, Belzona 5821, Belzona 9811

Problem

The customer was facing a huge wear issue from the process flowing through the pipe. Not only were they seeing wall thinning but wear through holes on the outside bend of the elbow.



After applying ceramic tile and pre-fitting for Super Wrap II.



Applying 5821 with Cabosil to fill in as a grout and add some wear resistance.



Applied Super Wrap II using Belzona 1984



Completed wrap after applying the consolidation tape.

Application Situation

The customer was replacing this pipe every 2-3 months due to wear from the process flowing through the pipe. Since the inside diameter was smaller and we couldn't add the tile to the inside we added the tile to the outside and filled the voids using Belzona 5821 with Cabosil as a grout and to add some wear resistance. The customer asked if we could do anything further to add anymore life to the pipe. After our team discussed this we decided to wrap the pipe using Belzona 1984 Super Wrap II. This is the second one we have completed for them this year and the first one was completed in February 2025. We have went from 3 months to 10 months and still counting. Cost of downtime and replacing the pipe every 3 months was around \$150,000 plus production time.

Application Method

We began by blasting the pipe to a 3 mil profile and cleaned the surface using 100% MEK. Next we pre-fit our tile and cut to fit. Then we used Belzona 5821 with Cabosil to apply the tile, working it into the surface of the pipe and on to the back of the tile. After applying the tile we then used more Belzona 5821 with Cabosil to fill in the grout lines and coat the surface of the tile. After proper cure time we then pre-fit the Super Wrap II and applied two wraps using Belzona 1984. To complete the application we applied the consolidation tape and let cure the proper time. We have set up an inspection period with the client for every six months.

Belzona Facts

Initial cost savings for the client on their project was \$150,000 for downtime plus production time they would have been down. There were no other option at this time other than replacing the pipe every three months. They chose Belzona from our past applications and success with this client and we also did a trial run on a pipe before in February 2025 and they went from replacing the pipe every 3 months to now we are at 10 months and going strong.

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