

Metaldeza hydraulic central power pipe

SIGMAFAST™ 278 delivers the ultimate solution for in-shop applications

Case study



The Customer

Metalúrgica del Deza (Metaldeza)

The Location

The municipality of Lalin, Pontevedra, north-west Spain

The Challenge

To apply a fast-drying epoxy coating with a good thickness range

The Solution

SIGMAFAST 278

The Benefits

- Fast drying
 - Broad application thickness range
 - Wide temperature application range
 - No induction time
 - High solids
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The Result

- Thicknesses applied from 125 to 225 microns in a single coat
 - Dry-to-touch: fulfilling customer expectations
 - Minimum recoating time
 - Easy spray application with airless equipment
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The Customer

Metalúrgica del Deza (Metaldeza), formed in 1987, is a Spanish company of 110 employees, located in the municipality of Lalin, Pontevedra, north-west Spain.

Metaldeza specializes on the design, manufacture and assembly of metal structures and metalwork, including infrastructure projects, pipelines, filters, and vessels under pressure. The company holds ISO 9001 and OSHAS 18001, ISO 14001, EMA'S and is certificated by ASME.

The Challenge

The task involved providing the most effective protective coating for a pipes for a hydraulic power installation, which was to be applied in-shop.

The specific challenge for PPG was to deliver optimal product performance in difficult operating conditions at 10°C. In addition, rigorous Health & Safety requirements, including strict VOC regulations, had to be met.





The Solution

As a result of PPG's long relationship with Metaldeza, we were able to analyse and offer the most effective coating solution for this new-build project.

The SIGMAFAST 278 product, with its innovative phenalkamine technology, provides excellent protection for a number of different environments and was chosen as the optimal solution from the PPG range. The coating is easy to apply with airless equipment and provides excellent fast-drying times, being touch-dry after 1 hour and ready for overcoating after 2 hours, resulting in a quicker application process.

Coating systems applied:

Internal pipe:

- SIGMACOVER™ 280
- SIGMAGUARD™ CSF 575 (two layers)

External pipe:

- Area to into concrete: SIGMAFAST 278 (one single layer)
- Area to atmospheric condition:
 - SIGMAFAST 278
 - SIGMACOVER 410
 - SIGMADUR™ 550

The Benefits

The SIGMAFAST 278 high-solids zinc phosphate epoxy primer and buildcoat is now the ONLY coating on the market that combines 80% of volume solids with excellent fast-drying properties in one product, and therefore ideal for this type of projects.

Metaldeza choose for a solution with the SIGMAFAST 278 coating that because of its key benefits:

- Easy to apply
- No induction time
- Fast drying: Touch-dry after 1 hour and dry to overcoat after 2 hours at 20°C
- Broad application thickness range: 75 microns to 250 microns
- Wide temperature application range with only one curing agent: -5°C to 40°C
- Low-VOC content: 230g/L and 153g/kg maximum, complying with the latest VOC legislation
- High solids: 80% of volume solids: less waste

The Result

The SIGMAFAST 278 coating offers heavy-duty protection, excellent adhesion and accelerated curing speed.

The coating was applied quickly and simply with airless equipment at the in-shop location. The ease of application and fast drying is essential to allow the pipes to be fabricated efficiently, reduce manufacturing time and increase productivity.

The customer was delighted at the speed and accuracy of application, the speed of dry-to-touch and the minimal recoating time:

“This product has fulfilled the objectives that we had set when selecting it: easy to apply, appropriate thickness and fast drying.”



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