AXALTA COATING SYSTEMS

Plascoat PPA 571 HES Maximising the Life Cycle of Buried Metallic Components



Challenging Conditions

Cast and ductile iron fittings within the water resources infrastructure in Calgary need to withstand harsh conditions without corroding. They are buried at depths of ten feet and more in soils with high acidity which drop to very low temperatures in the winter. Prior to reaching this final destination they are handled pretty roughly, piled up into trucks, and tipped out on site. Until recently the metal has been coated with a fusion bonded epoxy (FBE) coating but this is vulnerable to chipping and scratching, exposing bare metal and allowing corrosive action to begin.



Application:

buried metallic components for water distribution **Product:** Plascoat PPA 571 HS **Location:** Calgary, Alberta, Canada **Client:** Water Services & Terminal City Iron Works Ltd

"We are very deliberate about maximising the life cycle of all the metallic elements in our water supply system. One way we achieve this is by applying cathodic protection to buried metallic fittings, along with the best protective coatings available." Bill Ng, Technical Coordinator, Waterworks Specifications, The City of Calgary

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As a consequence all fittings have to be carefully checked and repaired where necessary. This involves stripping, re-sandblasting and re-coating with some considerable expenditure in time and money.

The City of Calgary, Water Services decided to look at coatings with a high degree of impact and abrasion resistance.

Solution

Water Services and their supplier Terminal City Iron Works Ltd trialled one of the Plascoat® PPA 571 family of thermoplastic coating **PPA 571 HES**. Thermoplastic powders melt to form a thick and flexible coating that 'wets out' over welds and gives excellent edge to edge coverage.

Result

The City of Calgary issued an approval for using Plascoat **PPA 571 HES** as an equal to fusion bonded epoxy coatings on fittings used throughout the waterworks distribution systems.

Costs savings are achieved from the outset as Plascoat **PPA 571 HES** is quick and easy to apply. It needs no primer and curing time is just a few minutes whereas fusion bonded epoxy can need around two hours or longer in a hot oven. This also translates to a smaller attributable carbon footprint associated with every fitting coated with Plascoat **PPA 571 HES**, which aligns well with Water Services environmental program. Greater durability and ease of repair means that maintenance costs are minimized.

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Key Points

Plascoat[®] PPA 571 HES

- demonstrated that it:
- Has consistent quality, high dielectric values, and very good adhesion
- Is less vulnerable to damage from rough handling than the more traditional FBE coatings
- Can undergo minor repairs in the field by re-melting and resealing
- Has high UV resistance
- Is fully compatible with existing FBE application equipment and is operator friendly for the client's approved applicator
- Meets the client's compliance requirement for the NSF61 Standard for potable water quality
- Is BPA free