

# Pipe Materials

In HydInfra



# Johnston-Fargo Photo Credits

- photo 0680- galvanized (Zinc coating) has information stenciled on the coated steel, date, heat #, manufacturer, ASTM & AASHTO designations. (50 years life expectancy)
- photo 0681- aluminized T2 has same information stenciled on coated steel, date, heat #, manufacturer, ASTM & AASHTO designations.
- photo 0688- polymeric has same information stenciled on coated steel, date, heat #, manufacturer, ASTM & AASHTO designation.
- photo 0669- polymeric coated stencil -
- photo 0670- 100 years (plus) service life on the poly coated steel, comes in annular(rivited), spiral & spiral rib - 16ga, 14ga, 12ga.
- photo 0672-75 years (plus) service life on the aluminized type 2, comes in annular(rivited), spiral & spiral rib - 16ga, 14ga, 12ga, & 10ga.
- photo 0674 - 50 years (plus) stock annular (rivited) pipe
- photo 0673 - aluminized Type 2 pipe - in spiral corrugation
- photo 0677 - aluminized Type 2 pipe in spiral rib & galvanized pipe in spiral corrugation (compare different coatings & corrugations)
- photo 0679 - galvanized coating - spiral corrugation
- photo 0678 - aluminized type 2- spiral rib corrugation
- photo 0675 - galvanized annular

# Galvanized Steel



photo 0680- galvanized (Zinc coating) has information stenciled on the coated steel, date, heat #, manufacturer, ASTM & AASHTO designations. (50 years life expectancy)



photo 0679 - galvanized coating spiral corrugation

photo 0675 - galvanized annular



# Galvanized Steel

- Old pipe with new extension



# Steel Plate

- Note the Bolts



# Polymeric-coated Steel

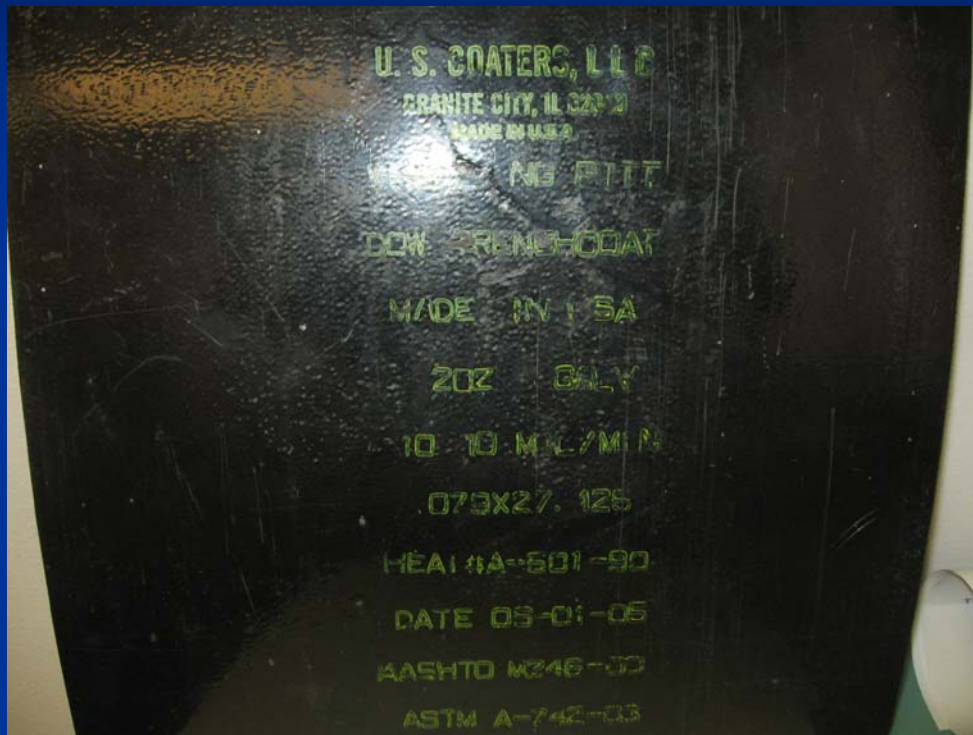


photo 0688- polymeric has same  
information stenciled on coated  
steel:

date, heat #, manufacturer, ASTM &  
AASHTO designation



photo 0669- polymeric coated stencil

photo 0670- 100 years (plus) service life on  
the poly coated steel,  
comes in annular(rivited), spiral & spiral  
rib - 16ga, 14ga, 12ga.



# Aluminized Steel



photo 0681- aluminized T2 has same information stenciled on coated steel, date, heat #, manufacturer, ASTM & AASHTO designations.



photo 0672 -75 years Manufacturer's projected service life on the aluminized type 2, comes in annular(rivited), spiral & spiral rib - 16ga, 14ga,12ga, & 10ga.

# More Aluminized Steel



photo 0678 - aluminized type 2- **spiral rib corrugation**

photo 0673 - aluminized Type 2 pipe - in **spiral corrugation**



photo 0677 - aluminized Type 2 pipe in spiral rib & galvanized pipe in spiral corrugation (compare different coatings & corrugations)



# Wooden Pipe!



District 1 in Duluth  
State Highway MN 23



# Wooden Pipe



# Concrete Pipe



# Concrete Pipe – Corrugated!



Corrugated Concrete Pipe -- I 35 in Duluth  
(photo from Pat LaMourea)

# Plastic Pipe

- Smooth Plastic – HDPE or PVC
- Corrugated Plastic -- HDPE

# Plastic Pipe



“Smooth Plastic” dual wall HDPE has slight corrugations.  
PVC (no photo available) would also be “Smooth Plastic”

# Plastic Pipe

## Corrugated Plastic



# HDPE -- PVC

HydInfra does not differentiate YET. But will in future.



# Pipe Liner Materials

- Liner Plastic
- Not yet in HydInfra: Cured in Place