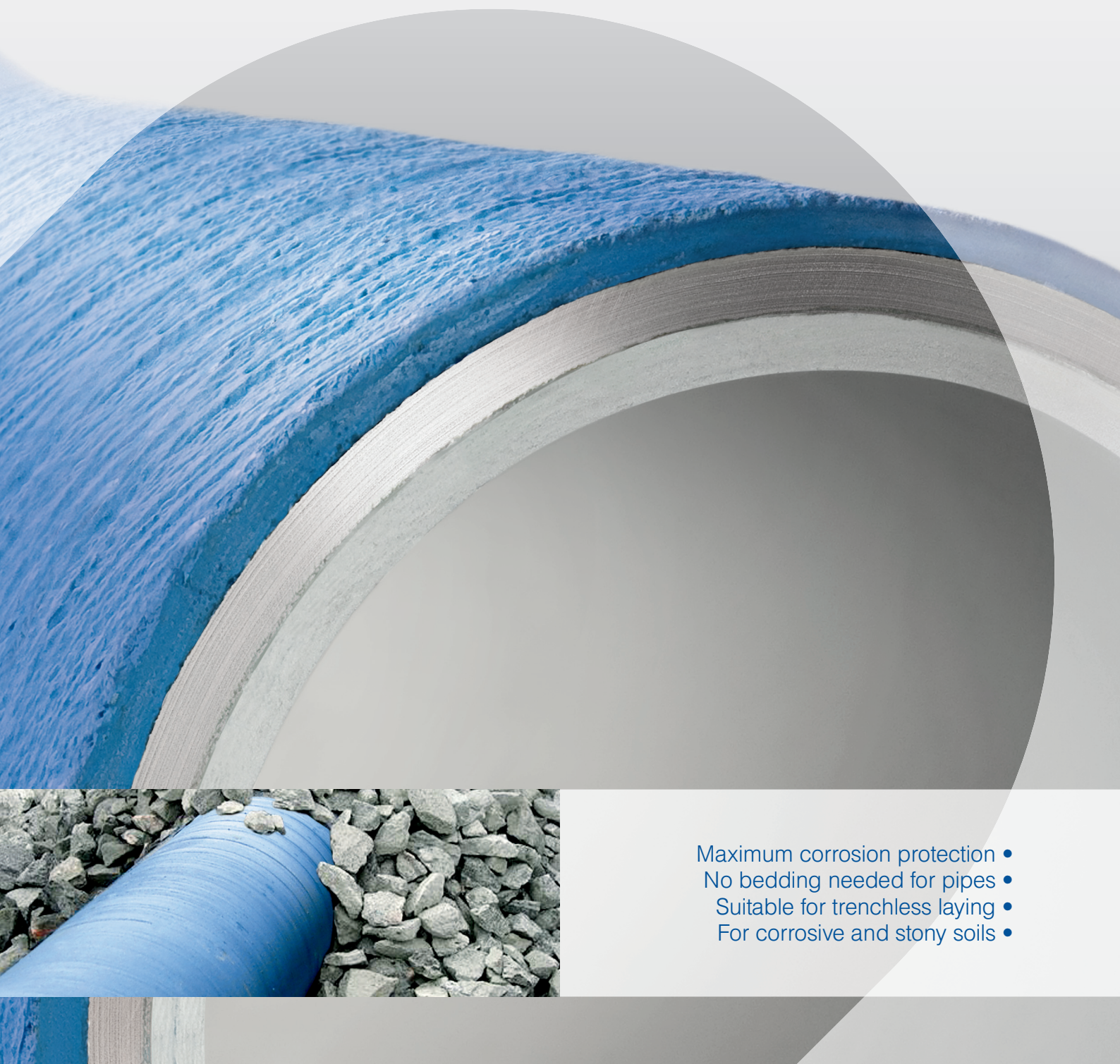




Ductile iron pipe systems with a
Cement mortar coating



- Maximum corrosion protection •
- No bedding needed for pipes •
- Suitable for trenchless laying •
- For corrosive and stony soils •

Why a cement mortar coating (ZMU)?

WHAT IS A CEMENT MORTAR COATING?

Plastic-modified cement mortar based on blast furnace cement is applied to a zinc-coated pipe in a helix of a uniform thickness of approx. 5 mm from a fishtail nozzle. As this is done, the ZMU coating is provided with additional reinforcement by a net material similar to a bandage. ZMU coatings are available both for drinking water (blue) and for waste water and sewage (reddish brown). The ZMU Plus pipe, of constant outside diameter, is available for trenchless laying techniques in non-cohesive soils.

ADVANTAGES OF THE ZMU COATING

Resistant to chemicals

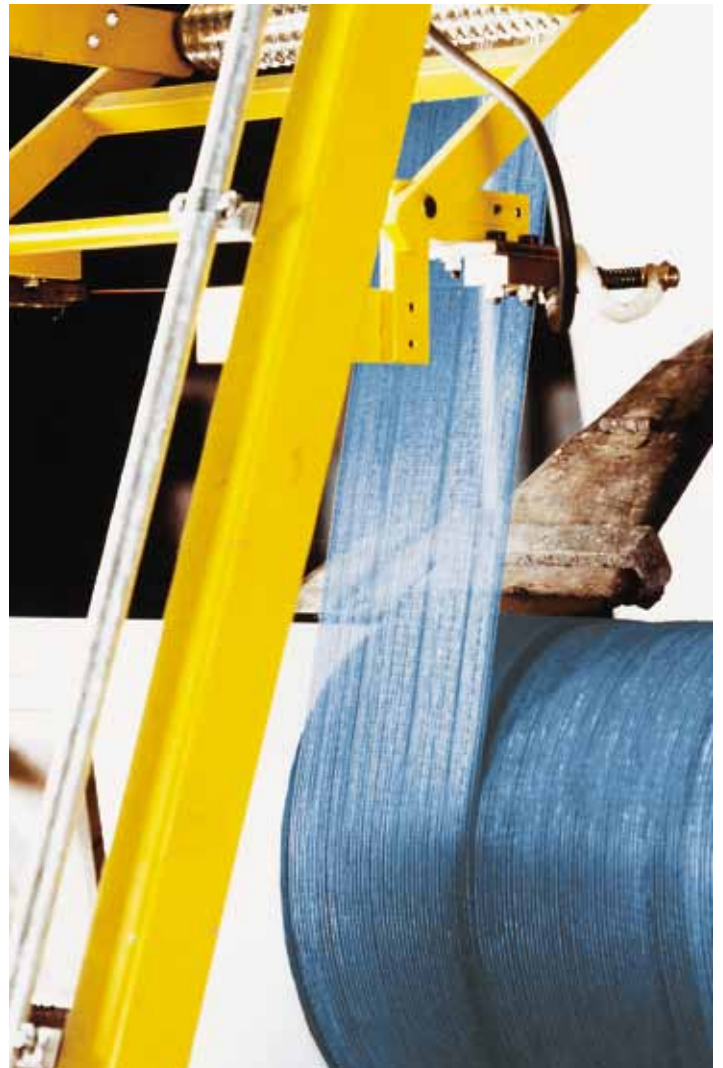
- Under EN 545 and EN 15542, ductile cast iron pipes with a ZMU coating can be used in soils of any desired corrosiveness.

Gives mechanical protection

- ZMU pipes can be laid in soils with a maximum grain size of 100 mm regardless of whether the grains are round or irregular. This is why these pipes can also be used for trenchless installation techniques.
- Because of the high impact resistance of the ZMU coating, the pipes are particularly well suited to the usual rough treatment they can expect on building sites.
- Can be used for trenchless installation techniques: for the press-pull, auxiliary tube, burst lining, horizontal directional drilling, rocket ploughing, and pipe relining techniques and others.

Economic advantages

- No need for exchanges of soil or for additional bedding for the pipes, and the soil excavated can be re-used.
- Savings of time and money, because the soil excavated does not have to be taken away and kept on a dump.
- Long-term corrosion protection and hence a long life for the pipes (up to 140 years to DVGW (German Technical Association for Gas and Water).



Application of the ZMU coating in the factory



A pipe bridge



Close-up of a ZMU coating

Ready for anything!

- Durability measured in decades (up to 140 years) and the good material properties do not change.
- High load-bearing capacity (for internal and external loads) and generous safety margins.
- Both deep and shallow top cover are possible.
- Wall thicknesses, coatings and linings optimised for the application make the pipes suitable for use in a vast variety of fields.
- A complete modular pipe and fitting system.
- Innovative restrained joints locked against longitudinal forces can be made.
- The material is environment-friendly (sustainable and recyclable and the materials used are inorganic).
- Drinking water and groundwater are protected by pipe walls which seal against diffusion.
- Cement mortar linings are safe for drinking water.
- Socket joints are capable of angular deflections of up to 5° so fewer fittings are needed.
- The most economically sensible solution on the market.
- Easy to connect and install.
- German quality.
- Certified to DVGW (German Technical Association for Gas and Water) standard VP545, monitored by the MPA NRW (North-Rhine Westphalia Materials Testing Institute).



A turbine pipeline



ZMU pipe with a BLS®/VRS®-T joint



Laying in Alpine terrain



Your contacts

For the full picture visit www.duktus.com/en/contact



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