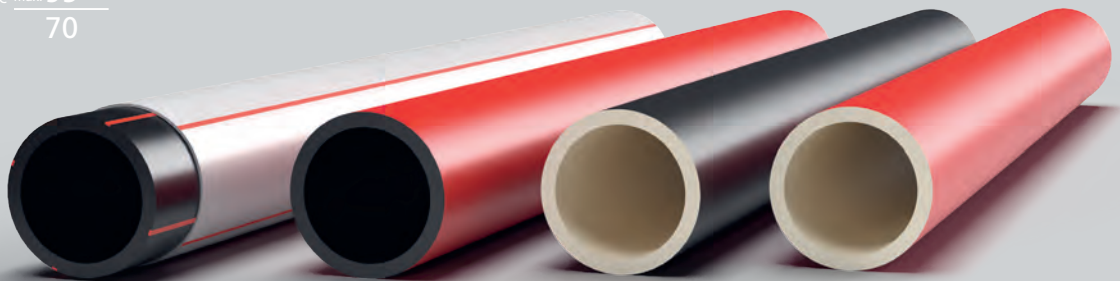


LHT® E-POWER Cable protective pipe system

Protective pipe system for high and extra-high voltage lines up to ⚡525 kV

As part of the complex expansion of the transmission grid, "green electricity" is distributed over long distances as underground cable routes in protection pipes. These are subject to mechanical loads during installation on the one hand and intense material stresses due to high operating temperatures on the other. The Gerodur E-POWER system enables efficient installation and a high level of operational safety and value retention of the power lines. The EMDS protective pipe of the high-performance class LHT® has excellent installation properties typical of PE as well as very high material stability against high and long-term temperature stress.

LHT® protective pipelines made of highly flexible and resilient PE-RT or PE-RT-RC are suitable for demanding installation methods and can also be used in a resource-saving manner using Horizontal Directional Drilling.



The project-specific use of high-quality PE-RT materials enables operating times of more than 50 years with continuous temperature loads from -40°C to 70°C with peaks of up to 95°C. For use with high and extra-high voltages up to 525 kV.

Features

- Protection pipe made of certified, temperature-stabilized PE-RT in accordance with ISO 24033 or PE-RT-RC with additional increased stress crack resistance, DIN 8074, DIN 8075, DIN EN 12201, DIN 16833
- Suitable for HDD installation in accordance with DVGW GW 321 (tensile force values for PE100)
- System-compliant standard and special fittings
- UV-stabilized signal colour layer
- Pipe inner surfaces optimized for smooth cable entry
- EPD (Environmental Product Declaration) available
- Optional ISCC Plus certification - use of sustainable raw materials
- Extensive range of other system components for efficient installation

Installation types

- In open trenches with and without sand bedding
- Ready for plowing / milling
- Pipe insertion according to DVGW GW 320-1
- Horizontal Directional Drilling (DVGW GW 321)

Pipe connections by means of

- Butt fusion welds according to DVS with internal bead removal
- Barrier-free electrofusion welds according to DVS with E-POWER couplers
- Barrier-free plug-in connectors with E-POWER plug-in sockets

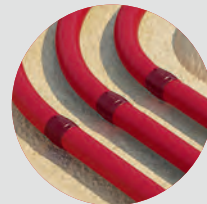
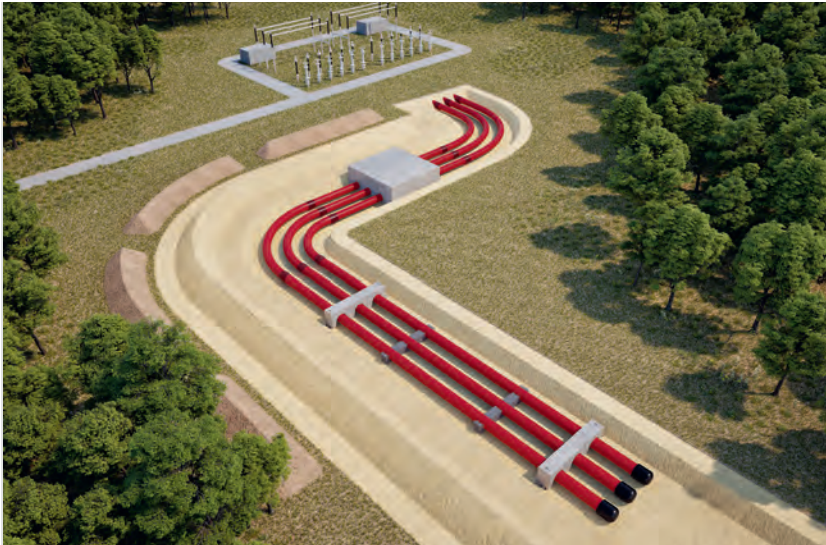
Design variants / Delivery forms

- Single-layer in black (optionally with colored stripes)
- Double-layer in black or PE-natural with colored outer layer
- Black core pipe (optionally with colored stripes) and gray protective jacket (optionally with colored stripes)
- Straight length | Coil | Reel
- DN/OD 110 to 630 | SDR 7.4 to 26

LHT® E-POWER System components (selection)

Optimized range of accessories for efficient installation

Coordinated and project-specific dimensioned fittings and aids ensure time-saving installation of the protection pipes, barrier-free cable entry and long-term, high-performance operation of the power lines.



Electrofusion couplers



Bends



Uplift protection



Spacer



EMDS E-POWER push-in socket

- temperature-stable PP-HM
- with EPDM sealing ring
- easy to use



Electrofusion coupler LHT®

- pressure-tight
- pull-out-proof
- root-resistant
- temperature-stable



EMDS E-POWER

Pipe bends LHT®

- up to 70°C permanently
- special molded bend with specific radii (up to 5m)



EMDS E-POWER

Welding adapter LHT®

- for "last welding bead"
- with recessed welding bead zone



End caps

- made of PE 100
- Weldable or as a push-in sleeve for closing protective conduits



Reduction EMDS LHT®

- for direct welding of different diameters and SDR classes
- up to permanently 70°C
- special shaped part with specific geometry (SDR | DN/OD)



EMDS E-POWER spacer

- for constant pipe spacing
- project-specific dimensioning
- as a one-way or reusable profile
- different element types (PE/PP/EPS)



EMDS E-POWER uplift protection

- against uplift caused by installation
- project-specific dimensioning
- for constant pipe spacing
- as disposable or reusable concrete profile

All information, accessories and processing instructions can be found on our website.

