PURE PROGRESS / poloplast

Bridge drainage

POLO-ECO plus Premium



First choice for bridge drainage

Bridge structures are exposed to extreme environmental conditions. A durable, low-maintenance drainage solution must withstand UV radiation, temperature fluctuations, mechanical stress from wind and traffic loads, and particularly de-icing salts.

Conventional drainage systems quickly reach their limits under these conditions – whether in terms of weight, socket connections with collars, longevity, availability or installation flexibility.

That is why the exceptionally longitudinally stable POLO-ECO plus Premium is the first choice for bridge drainage. POLO-ECO plus Premium is robust, reliable, weatherproof, UV-resistant for at least 30 years, and – thanks to its white outer layer – visually very discreet.

Effective bridge drainage with POLO-ECO plus Premium

POLO-ECO plus Premium has proven its worth for over 15 years in use on bridges throughout Europe.

The system offers:

- Outstanding UV resistance
- The lowest expansion coefficient
- Maximum longitudinal stability
- Easier installation and reduced structural load due to approx. 80% less weight than cast iron systems
- Comprehensive range of special fittings
- Resistance to de-icing salts
- Excellent abrasion resistance
- Smooth inner surface, optimum hydraulic performance even at low gradients
- Push-fit socket system with Top-Connect technology
- Tested ring stiffness values
- Immediate availability
- High operational reliability
- Very low operating costs

These properties enable a durable and reliable solution, even in the most challenging weather conditions.

Support spacing

To ensure the pipe system's long-term function, assuming potential full loading (full flow) and environmental influences such as wind load and UV radiation, as well as long-term longitudinal stability, the general rule is: maximum support spacing of 300 cm.



UV resistance

With regard to the UV resistance of our POLO-ECO plus Premium pipe system, we can guarantee proper technical function for at least 30 years, in compliance with installation guidelines and fitting instructions, and subject to POLOPLAST's GTCs.



Maximum support spacing of 300 cm

Pipe DN	Spacing at full load (drainage) [cm]	Spacing at partial load (e.g. cable conduit) [cm]
110–125	150	150–200 *
160	200	200–250 *
250	250	300 *
315–630	300	300

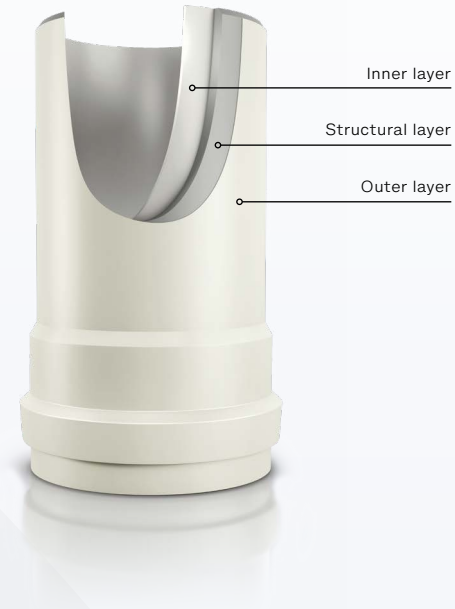
* Extended spacings dependent on individual weight loading

Three layers: Built to last

The outer layer
- Mineral-reinforced PP-BLEND
- Reduces heat absorption
- Maximum resistance
- Longitudinal and spot stability

The structural layer
- Mineral-reinforced, highly crystalline polypropylene
- Exceptional strength, stiffness and toughness
- For high pipe system flexibility

The inner layer
- Chemical resistance within the 2–13 pH range
- High abrasion and impact resistance
- Smooth inner surface for optimum runoff characteristics
- Prevents encrustations



Successful POLOPLAST projects

Austria's market-leading POLO-ECO plus Premium system has successfully been proving its worth since 2010 in numerous bridge construction projects throughout Europe – from motorway bridges and railway lines over rivers to urban structures.



Complete refurbishment of bridge drainage, Villach Junction . Austria

Pipe system	POLO-ECO plus Premium SN 12
Project scope	2,378 m
Pipe size(s)	DN 75–500

Special features
Short construction time and rapid refurbishment thanks to the high level of delivery reliability and straightforward installation, high longitudinal stability, guaranteed UV resistance and innovative special components for maximum longevity.



Drainage of the new Danube bridge, Linz . Austria

Pipe system	POLO-ECO plus Premium
Project scope	1.100 m of pipes
Pipe size(s)	DN 75-400

Special features
Maximum flexibility of the pipe system. Prefabricated support and suspension points remove the need for subsequent drilling or welding of the pipe fastenings.



Bridge refurbishment on the A10 Tauern Motorway . Austria

Pipe system	POLO-ECO plus Premium 12
Project scope	5,000 m of pipe
Pipe size(s)	DN 160–630

Special features

Renewal of drainage system, compliance with a very tight construction schedule, rapid availability of sizes 160–630, high proportion of special fittings (e.g. cleaning pipes).

Selection of additional references

- A2 South Motorway, Vienna-bound carriageway (AT)
- S31 Mattersburg Junction (AT)
- Linz to Wegscheid (AT)
- Franz-Josef-Strauß Bridge in Schweinfurt (DE)
- A2 at Pörtschach (AT)
- A10 / L25 at Pressingberg in Liesertal (AT)
- Sonnenburg Bridge on the A13 Brenner Motorway (AT)

‘The best system ever installed on a bridge.’

Feedback from the field: Project Manager, State of Carinthia

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