A rigid pre-insulated polymer pipe system for process cooling applications

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Hiline Aqua Cool is a complete, pre-insulated polymer pipe system specifically developed for the safe and efficient conveyance of cooling media for environment control and industrial process applications. Its bonded, composite construction offers outstanding thermal performance coupled with exceptional levels of reliability and operating at temperatures down to minus 40°C.

**Polyethylene Service Pipe (PE100)**
As standard, Hiline Aqua Cool is offered with a high-performance PE100 service pipe as PN10 rated (SDR17.6) or PN16 rated (SDR11) and fully in accordance with DIN 8074. PE100 can be offered ‘Kitemarked’ and as WRAS-approved material. PE100 material offers excellent mechanical performance, impact resistance and chemical resistance with a temperature range from -40° to +60°C.

Hiline Aqua Cool can also be offered with alternative service pipe materials including PP and ABS.

**Tough Outer Casing**
Manufactured in HDPE to the requirements of the EN253 standards, the tough and resilient outer casing enables the pipe to be buried directly in the ground – so ensuring the network’s insulation integrity is maintained throughout its service life. When installing a network in contaminated ground, a barrier casing can also be specified.

**High-Performance Insulation**
A layer of CFC-free rigid polyurethane foam provides outstanding insulation properties, with values of 0.022 W/mK and with the insulation thickness according to the Series 1 requirements of EN 253. With the service pipe and outer casing being bonded together by the foam insulation, the system far out-performs other systems with an air gap. With this increased efficiency, comes lower heat loss and therefore a saving in both operational costs and carbon emissions.

For even greater efficiency, Hiline Aqua Cool pipe systems are also available with increased insulation thickness to series 2 and series 3.

**Complete System**
Hiline Aqua Cool has a comprehensive range of pre-fabricated bends, tees, fittings and accessories that enable it to be adapted to meet all possible configurations – including transitions to other types of pre-insulated pipe systems – such as Hiline Steel or Hiline Flex. Hiline Aqua Cool can be offered as off-site pre-fabricated fittings and spool assemblies to meet a client’s bespoke requirements – significantly reducing installation time and cost.

**Robust and Adaptable Joints**
The Hiline Aqua Cool PE service pipe is perfect for thermoplastic welding techniques, including electro fusion, butt fusion and socket fusion.

The HDPE outer casing can be joined using the proven Hiline range of wrap-around heat-shrink or electro-fusion couplings to ensure the very tightest of joints to protect against the ingress of ground water.

**Trace Heating and Electronic Surveillance Options**
All of the Hiline Aqua Cool range is available with the option of integrated trace heating cables to protect the media temperate and electronic surveillance systems that warn of moisture ingress into the insulation.
Available Dimensions

Hiline Aqua Cool (5m, 6m and 12m lengths)

<table>
<thead>
<tr>
<th>Type</th>
<th>Service Pipe</th>
<th>Series 1 Insulation</th>
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<tbody>
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<td></td>
<td>OD (mm)</td>
<td>ID (PN10 SDR17.6)</td>
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Standards
Hiline Aqua Cool pre-insulated pipes and fittings for process utilities are manufactured within an ISO 9001 accredited environment, generally in accordance with the requirements of EN 253 and in compliance with EN 448, EN 488, EN 489 and EN 13941.
Complete Range
Hiline Aqua is part of the wider Hiline range of pre-insulated pipe systems that include the following service pipe options:

- Steel
- PE-Xa
- Copper
- Glass-Reinforced Epoxy (GRE)
- Polyethylene
- ABS
- Polypropylene

World-Class Support
The Hiline range is backed by world-class support services that include assistance with:

- System design and stress analysis
- Planning and drawing support
- Technical support and on-site advice
- Installation training
- Commissioning and operational support services
- Tool hire

CPV is a member of the following organisations: