HTA

Interactive specification guide

aliaxis

Range introduction

HTA is a fully matched system of pipes, fittings and valves, designed for transporting hot and cold water at pressure, making the system a high-performance, cost-effective alternative to copper.

HTA pipe is WRAS compliant and manufactured to a high level of industry standards. The smooth bore of HTA helps to generate energy savings by maintaining excellent pump efficiencies throughout its use. With no threat of corrosion, HTA pipes can also significantly reduce the costs of maintenance throughout the 50-year design life of the system.

A safe, simple and fast method of creating robust, permanent joints, HTA solvent weld fittings are fully WRAS approved for transporting hot and cold water. No specialist tools, electricity or hot works are required when joining HTA, this alongside the speed of installation can offer significant time and cost savings on site.

Dashboard

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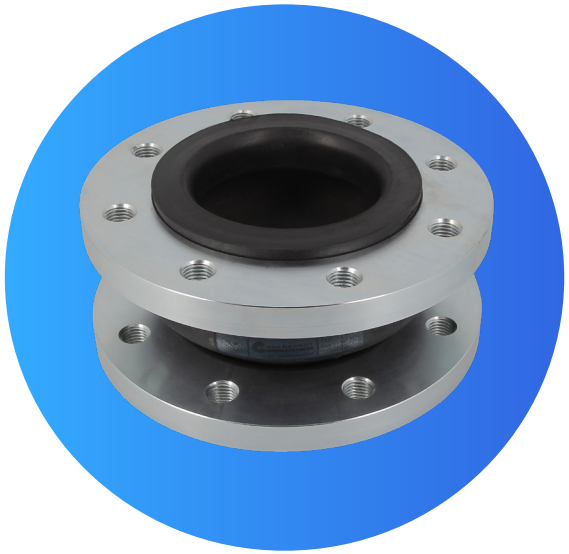
Interactive specification toolkit

Features and benefits



- HTA is a high-performance pipe system designed to distribute high temperature water at pressure.
- The HTA system is classified Bs1d0 (Euroclass), the highest fire classification possible for a synthetic material.
- HTA is resistant to corrosion, helping to guarantee the durability and integrity of water networks.
- The incredibly smooth bore of HTA helps to reduce the opportunity for biofilm development and resist the build-up of scale, all contributing to reduce the development of harmful bacteria.
- HTA is resistant to a variety of rigorous thermal and chemical treatments helping to maintain a safe and healthy water supply.
- The smooth pipe bore of HTA contributes to reducing frictional losses and maintaining pump efficiencies.
- HTA can be installed quickly and efficiently with straightforward processes, simple training, and without the need for a hot-works permit.

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Areas of application

Class	Type	Pipe Type	Operating Temperature	Max Operating Pressure	Expected Design Life
2	Domestic Hot Water	PN16 (16mm to 160mm)	Up to 70°C	6bar	50 years
		PN25 (16mm to 63mm)	Up to 70°C	10bar	50 years
2	Domestic Cold Water	PN16 (16mm to 160mm)	<20°C	16bar	50 years
		PN25 (16mm to 63mm)	<20°C	25bar	50 years
4	Low Temperature Heating	PN16 (16mm to 160mm)	Up to 60°C	4bar	50 years
		PN25 (16mm to 63mm)	Up to 60°C	6bar	50 years

Important Notes

HTA valves and thermal expansion solutions are excluded from all references to 25bar operating pressures. For systems that expect to operate beyond 16bar pressure, please consult the Aliaxis technical team for guidance on valves and thermal expansion solutions.

Where system temperatures are expected to exceed those cited in the above table, please consult the 'Classes of Use' section of this specifier guide for full details on maximal and malfunction conditions.

If in doubt, please contact the Aliaxis UK technical team for guidance.

Classes of use

European and international standards have defined classes of application in the construction field including simulation tests of standard operating conditions along with malfunction conditions.

For example, Class 2 provides for a test formula intended to cover a product life comprising of a standard operating period (49 years at 70°C), an overheated operating period (1 year at 80°C) and a malfunction period (100 hours at 95°C).

The HTA system is suitable for application classes 2 and 4. This assessment is supported by the technical opinion of the CSTB (Scientific Technical Centre for Building)

International Class	Typical Application	Service Conditions	Maximum Conditions	Malfunction Conditions
Class 2	Domestic hot and cold-water supply	70°C 49 years	80°C for 1 year	95°C 100 hours
Class 4	Low temperature radiators, under-floor heating	20°C - 2.5 years and 40°C - 20 years and 60°C - 25 years	70°C for 2.5 years	100°C 100 hours

Applications classes 2 and 4 conform to ISO 10508 (Plastics piping systems for hot and cold-water installations)

For application class 4 projects, Aliaxis UK must be contacted for consultation prior to specification and provide written confirmation of HTA's suitability for the project prior to its installation. Systems specified and installed without this written confirmation will not be warrantied.

For application class 4 projects, please also consult the 'Precautions on Processing Fluids' and 'Implementation of a Network with Heat Pump' sections of this specifier guide.

For any applications other than class 2 and 4, please consult the Aliaxis UK technical team for advice.

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Identification and range specifics

Easy to identify pipes and fittings, coloured brown to distinguish the system from other pipework services.

The HTA system is supplied with a dedicated orange tinted cement to enable installers to verify that each solvent welded connection has been made prior to commission.

Pipes will be supplied capped and under plastic covers to ensure the cleanliness of the pipes until they are required for installation.

A wide range of C-PVC/metallic transition fittings are available to enable the connection of HTA to other systems where required.

Purpose designed fittings available to enable the installation of contact temperature probes for straight-forward monitoring of the network temperature.

A range of bespoke HTA thermal stress relief solutions can be supplied to cater for the thermal movement expected in a network.

Quality and certification

Product quality

To ensure a constant level of quality of its products and guarantee the HTA system meets the performance criteria stated, Aliaxis implements the control rules stipulated by a variety of international standards.

In the context of quality mark, the HTA system is monitored by different certifying bodies at regular intervals. These checks concern the physical and mechanical characteristics of the tubes and fittings.

In addition to the above checks, to guarantee the maximum level of reliability in real world conditions; Aliaxis conducts additional tests according to the standard NF T 54-094. The alternating pressure test (on fittings) is carried out regularly to simulate the stresses suffered by the products in a network (water hammer, speed variation, etc.).

Batch samples of 16mm to 90mm fittings are also tested to withstand 5000 water hammer cycles (at 20/60 bar) at a rate of 3600 cycles/hour. Batch samples of 110 to 160mm fittings are subjected to 2500 cycles at a rate of 1500 cycles/hour.

All industrial and logistics processes are certified in accordance with the ISO 9001 standard, thus ensuring the technical performance of products and the quality of services (delivery, technical assistance).

Certification

The HTA system is supplied with full WRAS product and material approval.

The HTA system is manufactured by an ISO9001 & ISO14001 certified company.

The system will hold quality certification: CSTB ATEC (technical agreement) for tubes and fittings for diameters 16 to 160 (Distribution of domestic hot and cold-water class 2 according to EN ISO 15877), CSTBat (quality control) certification.

The system will be supplied with the manufacturer's written warranty.

Tubes and fittings will hold a certificate of sanitary conformity.

The composition of the C-PVC used for HTA will comply with the European positive lists, the system benefits from a certificate attesting to this which is issued by an independent European body.

The composition of the C-PVC used for HTA conforms to a Euroclass (EN 13501-1) rating of B-s1,d0.

The system components (fittings) are tested at alternating pressure tests 20/60 bar with a 5000-cycle(1 HZ) range for diameters 16 to 90 and 2500 cycles (0.42 HZ) for diameters 110 to 160 according to NF T 54-094.

The pipelines will be marked to ensure full traceability of production.

System warranty

Aliaxis UK warrants HTA Systems, associated Products and tools against material and manufacturing defects for a period of fifteen (15) years starting upon the date of purchase (invoice date). This warranty applies only when the Products are specified, stored, installed and used in strict compliance with the technical documentation.

The warranty certificates, terms and conditions covers the replacement of defective Product at no extra costs, however excluding any claims for special, incidental and consequential damages and/or the removal and reinstallation of them.

This specification guide must be followed in all cases, supporting the best practice of installation alongside the technical documentation, ensuring the unlikely event of a warranty claim. Some of the main areas of consideration when installing Aliaxis Products should be considered which may invalidate your warranty if not followed:

- application and installation for which Products are being used
- Supporting methods, and materials,
- Insulation methods and associated materials,
- commissioning and working conditions,
- damaging fluids to be transported,
- working temperature-pressure values must be within the Products specification,
- and the hydraulic design of piping networks include pipe dimensions.

Full warranty terms and conditions can be provided as part of the supply and purchase of Aliaxis UK Products.
Please ask one of our Aliaxis UK Customer Service Teams for further details regarding Products and Systems Warranties.

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