

# REHAU SPECIFICATION

## EDGE (long version)

### General:

The system shall have a minimum design life of 50 years for hot water at 60°C and 10 bar operating pressure, or 70°C and 8 bar operating pressure, for an applied safety factor of 1.5. Pipes shall be Cross-linked Polyethylene type A (PE-Xa) only, with a minimum degree of crosslinking of 70%, homogeneous across the wall thickness of the pipe to reduce the chance of stress concentration during bending and reducing the chance of pipe kinks. Pipe in contact with the water shall be uncoloured virgin material only.

### System Components:

Non-threaded fittings size 16 mm to 25 mm and sleeves of all sizes shall be made of engineered polymer material that is lead free.

Brass fittings of all sizes shall be dezincification-resistant brass with maximum 0.1% lead. All brass fittings shall have “Lead Free” certification, and shall have a permitted dezincification depth of no greater than 50µm.

The inner sleeve on the fitting shall contain four inspection windows distributed around its circumference to provide visual confirmation from all angles that the correct pipe insertion depth has been achieved.

Pipe and fittings shall be Watermark certified and mechanically jointed using sliding compression sleeve technology only, to prevent risk of leakage due to over or under crimping. No O-rings or detachable joints are permitted in concealed locations.

### Manufacturer Quality Assurance Obligations:

Manufacturer shall provide:

- A minimum 25 years warranty against manufacturing faults, including 10 years warranty that includes cover for consequential damages.
- Confirmation of undisrupted product traceability from the raw material suppliers to the finished product, for pipes and fittings.
- Proof of Annual Process Verification Tests for pipes and fittings, conducted by a NATA or ISO 17025 accredited 3rd party lab.

### Installation Quality Measures-

In order to reduce the likelihood of system components being installed incorrectly and to subsequently reduce the risk of a leak and/or safety incident:

- Contractors are to be manufacturer trained and certified, with documented competency-based training, including provision of training records/certificate and refresher training courses at an interval of 2 years.

- All Pipe, fittings and installation tools shall be brand-matched, or otherwise manufacturer approved
- On request, the manufacturer shall conduct sample inspections of the installation quality and general compliance with the manufacturer's written installation and commissioning instructions. The Inspection shall be carried out by trained employees of the manufacturing company, with experience in the manufacturer's recommended installation and commissioning instructions and practices. A letter from the manufacturer shall be provided for every inspection conducted summarising conformance to the above requirements and outlining any recommendations **Note:** *The Contractor remains responsible for compliance with the contract and with regulatory and standards requirements.*