

GRIFFE PRODUCTS SPECIFICATION:

PPR Polypropylene Random Copolymer Pipes Technical Specifications:

1. **Smooth Inner Surface:** GRIFFE PPR is engineered for exceptional smoothness, minimizing fluid friction and facilitating efficient fluid flow.
2. **Cutting-edge German Technology:** Incorporates state-of-the-art German innovation, adhering to the rigorous safety and quality benchmarks of DIN 16962 for polypropylene pressure pipes.
3. **Flexibility and Durability:** Demonstrating a remarkable blend of flexibility and unyielding strength, GRIFFE PPR are easily transportable and boast straightforward installation.
4. **Non-Combustible Characteristics:** GRIFFE PPR exhibit inherent resistance to ignition, enhancing safety and reliability in various applications.
5. **Thermal and Acoustic Insulation:** Engineered with advanced insulation properties providing effective thermal and sound insulation for enhanced performance in diverse environments.
6. **Chemical Resistance:** The polypropylene composition imparts high resistance to chemical substances, ensuring longevity and reliability in the face of corrosive elements.
7. **Versatility in Environments:** Capable of operating in both acidic and basic environments, GRIFFE PPR effectively ward off rust and corrosion, contributing to prolonged service life based on DVS 223 standards for both hot and cold-water systems.
8. **Anti-Algae and Bacterial Growth:** With superior resistance, inhibit the formation and growth of algae and bacteria, maintaining hygienic conditions in fluid transport systems, compliant with E-DIN 1988 standards for safe drinking water.
9. **Isolation-Free Applications:** DIN 8078/ DIN 8076 Suitable for downlight applications without the need for additional isolation, exhibit non-reactivity with materials such as cement.
10. **High-Temperature Endurance:** Exhibiting high-grade resistance to heat ideal for applications in heating installations, safely withstanding temperatures of up to 95°C.

11. **Extended Service Life:** At a temperature of 20°C and a pressure of 25 ATM, GRIFFE PPR boast an impressive working life of 50 years, ensuring long-term reliability.
12. **Pressure Resistance Against Chemicals:** GRIFFE PPR demonstrate exceptional resistance to high-pressure conditions, making them suitable for applications involving various chemical substances.
13. **Superior Welding Performance:** Featuring high welding performance, these pipes eliminate concerns about diameter reduction during installation, ensuring a seamless and robust connection.
14. **Size and Color Variety:** Available in a range of sizes from 20mm to 110mm, accommodating diverse installation requirements with a selection of Green, White, and Yellow, providing both functional and aesthetic choices.

GRIFFE PEX-AL-PEX: Advanced Technical Catalog

GRIFFE PEX-AL-PEX represents a cutting-edge solution within water supply piping systems. Distinguished by an aluminum layer seamlessly integrated into both inner and outer pipe layers, it sets itself apart from conventional PEX pipes, which lack such advanced coatings. With over 15 years of successful utilization in the African market, GRIFFE PEX-AL-PEX has undergone extensive testing, affirming its durability and material performance.

1. **Aluminum Bonding:** The aluminum layer of GRIFFE PEX-AL-PEX is bonded to both inner and outer layers, enhancing its structural integrity and performance.
2. **UV Protection:** While conventional PEX pipes can be designed to guard against short-term UV damage, GRIFFE PEX-AL-PEX provides a more robust and comprehensive solution.
3. **Compatibility and Interchangeability:** GRIFFE PEX-AL-PEX serves as a direct replacement for various brands, including Mr. PEX and Watts (Radiant PEX-AL). It seamlessly integrates with the connection systems of these manufacturers, such as the PEX Press method and compression type fittings.

4. Conformance to Standards:

- **ASTM F1281:** Standard Specification for Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Pressure Pipe.
- **CSA International B137.10:** Crosslinked polyethylene/aluminum/crosslinked polyethylene (PEX-AL-PEX) composite pressure pipe systems.

5. Technical Specifications

1. **Nominal Pipe Sizes (NPS):** Ranging from 3/8 to 2¼ (DN sizes 12 to 75).
2. **Pressure Ratings:**
 - 200 psi at 73°F (1380 kPa at 23°C).
 - 125 psi at 180°F (860 kPa at 82°C).

6. PEX-AL-PEX Advantages

- **Potable Water Safety:** Ensures the safety of potable water with long-term reliability.
- **Corrosion Resistance:** Resists corrosion, tuberculation, and deposits.
- **Flexibility and Stiffness:** Offers flexibility combined with stiffness to maintain its shape.
- **Thermal Expansion Control:** Exhibits less linear longitudinal thermal expansion/contraction than standard PEX.
- **Oxygen Barrier:** Aluminum layer prevents oxygen permeation into the pipe.
- **Joining Options:** No flame is required for joining, with numerous fitting and joining options available.
- **Durability:** Demonstrates toughness and durability for robust jobsite installations.
- **Portability:** Lightweight, compact, and easy to transport.

7. Applications

- **Hot/Cold Water Plumbing:** Suitable for residential and commercial distribution.
- **Radiant Heating and Cooling Systems:** Ideal for floors, walls, and ceilings.
- **Hydronic Piping and Distribution:** Applicable to radiators, fan coils, etc.

- **Turf Conditioning/Pitch Heating**
- **Outdoor Snow and Ice Melting**
- **Chilled Water Piping**