

WAVIN SMARTFIX
Push-fit system

Push-fit system for metal plastic pipes



Wavin smartFIX is the first complete all plastic push-fit system for metal plastic pipes (also known as multilayer hot and cold pipes). The system offers reliable jointing and secure installation. Offering lightweight, slim profile and quick assembly, the technical excellence of Wavin smartFIX overcomes even the most complex connection scenarios.

The Wavin smartFIX fitting uses a high-tech connection where sealing is assured via a new, dry-coated 'O' ring. The 'O' ring significantly lowers the push-in force and does not attract dust and dirt.

Through a comprehensive family of more than 50 different push fittings, 16, 20 and 25 mm, Wavin smartFIX delivers instant system connection with one push. Wavin smartFIX can also be connected to the Wavin Tigris K1 press-fit system.

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Quality requirements

Wavin smartFIX meets all requirements in accordance with ISO 21003 (class 2 and 5) standards. The system has been tested and approved by the DVGW (DVGW DW – 8501BR0287), KIWA (K 43340/K43247/01), AENOR (001/004413-004441) and carries numerous other international approvals.

Product specifications

Raw material pipe

5-layer composite pipe with oxygen-diffusion barrier. Inner layer made of crosslinked polyethylene (PE-X); middle layer of aluminium and outer layer of PE.

Raw material fittings

Fitting body made of polyphenylene sulphone (PPSU). Wavin smartFIX cap made of a glass filled polyamide. Transition fittings are made from De-Zincification Resistant Brass.

Wall thickness pipe (mm)

DN	Wall thickness
16	2.0
20	2.25
25	2.5

Hot water resistance 100° C short term loading,
95° C long term loading
(max. 6 bar).

Max. permanent operating 10 bar (at T_{max} = 70° C)

Thermal expansion coefficient (pipe)

0.025 – 0.030 mm/mK

Thermal conduction (pipe)

0.4 W/mK

Pipe roughness

0,007mm

Applications

The Wavin smartFIX system is suitable for hot and cold water applications as well as radiator heating systems in residential, public and industrial buildings. Because of a wide range of fittings with clever solutions for special problems, the systems are optimally suited not only for new buildings but also for renovation of older systems.

System benefits

- ① **High performance fitting**
Fitting made of high performance plastic PPSU.
- ① **Simple and safe assembly**
Fewer assembly steps and visible insertion depth check.
- ① **Minimum tooling**
Only needs standard pipe cutter and pipe calibration tool.
- ① **Innovative double grab ring**
Grab ring grabs the pipe both on the inside as well as on the outside. This double security makes smartFIX twice as strong compared to competitors.
- ① **Dry O-ring technology**
More tolerant to demanding site conditions including dust and debris.
- ① **Lower push-in force**
Due to the innovative grab-ring and O-ring technology.
- ① **Rapid preparation and assembly**
Reduction of installation time and installed system costs.
- ① **Minimised linear expansion**
Comparable to copper.
- ① **Resistant to oxygen diffusion**
Due to the metal (aluminium) layer.
- ① **Free of encrustation, corrosion resistance**
Outstanding resistance to corrosion and encrustation from aggressive water supplies.
- ① **3-in-1 concept:**
1 metal plastic pipe for 3 fittings (Tigris M1, Tigris K1, smartFIX).



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