



Primary Pro Insulation Technical Data Sheet

Updated 16 January 2025



Total Solution

Our focus was, and will always be, on helping provide professional installers with the products and tools that provide the **Total Solution**. With every watt being so important for efficiency (C.O.P / S.C.O.P), sealing the insulation is as important as the insulation. We spent 3 years looking at all the issues, finding the solutions, and designing and making all of the products and tools to provide a **total solution** that protects the heat pump, system, customers, pro installers, heat pump manufacturers and the industry.

Water vapor diffusion resistance (permeability) is as critical as the thermal conductivity in insulation performance. This is because even a 1% increase in moisture content can raise thermal conductivity by 7.5%, significantly reducing insulation efficiency.

The μ -value (pronounced "mu-value") measures resistance to water vapor. Higher values indicate better resistance. A μ -value below 10,000 suggests low water resistance and compromises insulation efficiency, whereas values above 20,000 offer excellent protection.

To address this, we provide a unique, flexible, waterproof coating designed to prevent moisture penetration. This coating safeguards insulation efficiency while being easy to maintain. It also offers UV protection, ensuring long-lasting performance using our maintenance coating.

Additionally, sealing all joints, gaps, external fittings, and connections to the heat pump is crucial. Our specialised Bond & Seal product ensures a perfect seal, maintaining the insulation's effectiveness and maximising overall efficiency.

Technical Data



Material	Closed cell polyethylene insulation material made to our specifications, then etched and hand coated with our unique patented flexible coating
Thermal Conductivity	0.033 W/mk @ 0°C 0.037 W/mk @ 40°C
Water Vapor Permeability	Waterproof $\mu > 39,000$
Water Absorption	100% Waterproof (when correctly sealed with our bond & seal and maintained as advised.)
Temperature Range	-40°C to +105°C
UV Protection	Maximum protection out of the box with unique (patented) coating
Maintaining UV and Water protection	ONE recoat of our maintenance coat is needed every 4 years, or as/when required during your heat pump service and inspection. This can be applied over the sealed joints too. Please note: If not within 4 years, it should definitely be applied within 5 years to ensure optimal performance and protection
Sealing all joints	Only use our unique Bond and Seal to seal and cap all joints and seal to the heat pump
Sealing through the wall on the outside of the property	Our unique Bond and Seal will provide a perfect flexible seal to maximise efficiency and prevent moisture/water ingress penetration. Complies with all standards and regulations, Part L and MCS
Sealing on the inside wall of the property	You can use any product required to suit standards, aesthetics and decoration. Tip: Use a talon pipe cover.

Products & Tools

We have all sizes of insulation to insulate all the external pipework and fittings. With our unique Bond & Seal, we make sure that not only does the heat not get out, but water/moisture does not get in.

We have all the tools to make the perfect seal on all external walls, whether they are standard bricks or uneven walls such as stone or rendered walls.

Insulation Sizing

Primary Pro 22mm x 25mm Insulation (23 mm x 25mm \pm 1mm Tolerance)

Primary Pro 28mm x 19mm Insulation (29mm x 21mm \pm 1mm Tolerance)

Primary Pro 35mm x 19mm Insulation (36 x 21mm \pm 1mm Tolerance)

Primary Pro 42mm x 19mm Insulation (43 x 21mm \pm 1mm Tolerance)

Condensate Pro 35mm x 13mm Insulation (36 x 14mm \pm 1mm Tolerance)



info@primarypro.co.uk
www.primarypro.co.uk

