



PPA571
AQUA

Plascoat[®]
THE ART OF PROTECTION

Coating for water pipes and fittings

Lightness, strength, efficiency...

Welcome to a BPA-free world

Why choose Plascoat[®]?

Global supplier to the water industry

Since 1952 Plascoat[®] has been pioneering the science behind thermoplastic coatings, as well as the engineering knowledge on application and manufacturing. As a global supplier of thermoplastic coatings, approved for contact with potable water, Plascoat[®] has worked with water authorities since 2003 to reduce their water network distribution costs.

Plascoat[®] PPA 571 Aqua can be used on all metal pipes and pipe fittings, both internally and externally, and has a number of advantages over alternative coatings:



Plascoat[®] PPA 571 Aqua is potable water contact approved in many countries

Specifiers

Plascoat[®] PPA 571 Aqua is Bisphenol A free and approved in many countries for contact with potable water including:

- United Kingdom (WRAS)
- Germany (KTW/DVGW)
- United States of America (NSF)
- France (ACS)
- Australia and New Zealand (AS/NZS 4020)



Plascoat[®] PPA 571 Aqua is 100% free of Bisphenol A

Plascoat[®] PPA 571 Aqua meets the relevant requirements of the following coating specifications: EN 598, GSK, EN 14901, AS/NZS 4158 and AWWA*.

**Pending*



Plascoat[®] PPA 571 Aqua offers the best whole-life coating value

Water Companies

Plascoat[®] PPA 571 Aqua offers a number of advantages over alternative coatings for companies responsible for water network distribution:

- High flexibility ensures coating will not crack or chip
- High flow rates compared to cement lined pipes**
- Excellent UV resistance
- Proven performance at elevated water temperatures[†]
- Much lower coating weight compared to cement lined pipes
- Repairable coating



Plascoat[®] PPA 571 Aqua can be applied by flock spray or fluidized bed dipping

Pipe coaters

Plascoat[®] PPA 571 Aqua is easy, safe and quick to apply to pipe sections, fittings and valves. The coating can be used for both internal and external lining and provides the following benefits:

- No curing process required
- No primer required
- No volatile organic compounds, heavy metals or phthalates
- Can be applied by flock sprayed or fluidized bed
- Repairable coating

***Pressure drop tests performed by an independent test laboratory*

†Specification AS/NZS 4158:2003 para 2.3.2 and ISO 14901 para 7.2.5.2

Plascoat[®] pipe coating performance

How Plascoat[®] PPA 571 Aqua compares to alternative technologies

	Flow rate	Maintenance costs	Laying costs	Ease of application	UV resistance	Deformation risk	BPA free
Plascoat PPA 571 Aqua	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ¹	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
Plastic pipes (HDPE / PVC)	✓ ✓ ³	✓ ✓	✓ ✓ ✓	N/A	✓ ✓	✓	✓ ✓ ✓
Polyurethane	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ¹	✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓
Cement	✓	✓ ✓	✓	✓ ✓	N/A ²	✓ ✓ ✓	✓ ✓
Epoxy	✓ ✓ ✓	✓ ✓	✓ ✓ ✓ ¹	✓ ✓	✓	✓ ✓ ✓	✓
Polyamide	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ¹	✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓

¹ Higher flow rates allow smaller bore pipes to be used

² Cement is only used for internal pipe linings

³ Plastic pipes made from HDPE or PVC can suffer deformation due to earth movements or excessive lateral loads. Flow rates will significantly decrease if the pipe becomes flattened or distorted over its lifetime.

Plascoat[®] PPA 571 Aqua conformance to EN 14901 requirement in EN 545

	Parameter	Requirement	EN14901 Subclause	Test	PPA 571 Aqua
Routine	Surface Preparation (EN ISO 8501-1)	SA 2.5	5.2	Visual	Pass
	Appearance	Uniform colour and smooth	5.3	Visual	Pass
	Adhesion (EN ISO 4624)	Mean ≥ 8Mpa Single min ≥ 6Mpa	5.4	Punch separation method	Pass ≥ 8Mpa
	Coating thickness	Min 250 µm	5.5	Non destructive method	Pass Mean 500 µm Min ≥ 350 µm
	Cross Linkage	No deviation against reference	5.6	MIBK-Test	Not relevant*
Performance	Impact resistance	No electrical puncture	6.2	Dropping weight High voltage test	Pass ≥ 5Nm No puncture
	Indentation resistance	Depth ≤ 30% of initial thickness	6.3	Penetrometer at 70°C	Pass ≤ 30% after 48hrs
	Non porosity	No electrical puncture	6.4	Pass at 1500V	Pass
	Cross linkage	Calibration	6.5	DSC test on reference sample	Not relevant*
	Heat ageing in air	No electrical puncture	6.6.2	Hot air ageing of bent samples	Not relevant*
	Heat ageing in water	Adhesion ≥ 6Mpa	6.6.3	Ageing in 70°C hot water	Pass ≥ 6Mpa
	Materials in contact with potable water (National Regulation)	According to national regulations	6.9	According to national regulations	National approvals available on request
Repairs	Compatible with parent coating	5.7	Visual	Pass	

* Not relevant to thermoplastic materials, only specific to epoxy

Plascoat[®] PPA 571 Aqua: versatility

Internal or external

Plascoat[®] PPA 571 Aqua can be applied as an internal lining, as an external coating or both, making it ideal for water pipe fittings.

As an external coating it is highly resistant to UV damage. As an internal coating PPA 571 Aqua is highly resistant to reverse impact cracking, and is completely free of Bisphenol A.

Above or below ground

Plascoat[®] PPA 571 Aqua is the ideal coating regardless of whether the pipes or fittings are above or below ground. It has extremely good underground longevity, even in corrosive, low resistivity soils, and a high resistance to sand abrasion and UV damage above ground.

Pipes or fittings

Plascoat[®] PPA 571 Aqua is ideal for pipes or fittings. The coating will not chip, crack or flake. Pipes and fittings of all shapes and sizes can be easily coated to a specified thickness.

Potable or waste water

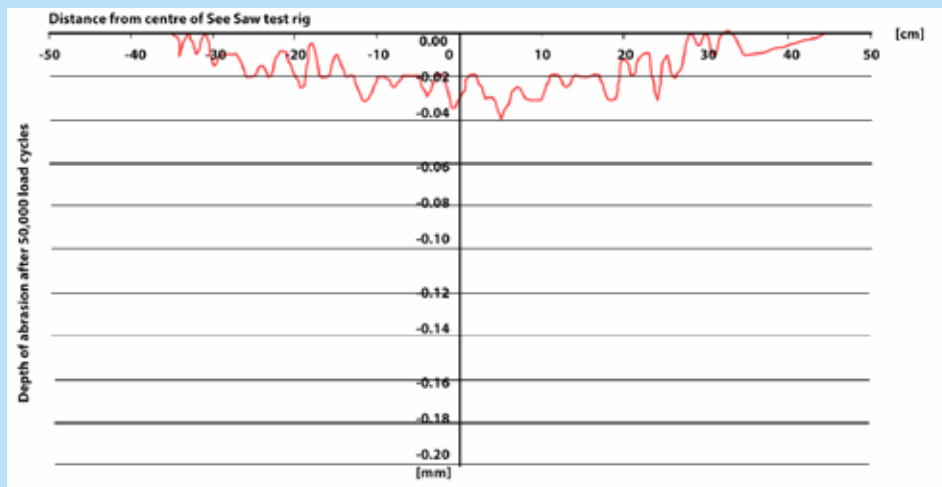
Plascoat[®] PPA 571 Aqua is suitable for internal use for both potable and waste water pipes. It will offer high performance against abrasion and chemical attack. It is also resistant to acidic or alkaline media.



These potable water fittings have been coated internally and externally with Plascoat[®] PPA 571 Aqua. Above and front cover image courtesy of Mecamob SA



Plascoat[®] PPA 571 Aqua is the ideal coating for pipelines running above or below ground level. Image courtesy of Leyfos Plastics Ltd



Plascoat[®] PPA 571 Aqua high abrasion performance is confirmed in this Institute for Underground Infrastructure test report. PPA 571 Aqua easily meets the EN 598 abrasion requirement by achieving much less than the 0.2mm abrasion permitted, at 50,000 cycles. The test involves sliding grit back and forth, via a see saw motion, over ductile iron coated in PPA 571 Aqua. EN 598 tests whether a coating is suitable for sewage applications.



Plascoat[®] PPA 571 Aqua provides excellent abrasion resistance. The above pipe carried potable water for one year and on inspection showed no sign of abrasion damage. Image courtesy of Diecron Inc., Macon, GA

Reduce your pipe infrastructure whole-life costs

With the continuous need to reduce costs and meet demanding water regulations, as well as the challenge of reducing leakage rates, it pays to choose your next pipe coating very carefully.

Save time and money during application

Plascoat® PPA 571 Aqua is easier to apply than polyurethane and epoxy and requires no curing process or primer. This enables more pipes to be coated in less time.

Plascoat® PPA 571 Aqua is easily repairable should an imperfection occur during application.

Save money on pipe transportation costs

Plascoat® PPA 571 Aqua enables a reduction^{††} in coated pipe weight if used instead of cement lining, and because of its high flexibility, it can be used to coat metal pipes with thinner walls, where appropriate. This does not only save money by requiring less metal per linear metre but also means transport costs are further reduced.

Plascoat® PPA 571 Aqua will not chip, crack or suffer from reverse impact damage during transportation or pipe laying operations. This feature will reduce the number of pipe components requiring rework.

Reduce pressure drop

Plascoat® PPA 571 Aqua offers a low friction surface to water which enables nearly double the flow rate compared to cement-lined pipes*. Its smooth, low friction surface also prevents biomass build up over time, and ensures that high flow rates are maintained throughout the lifetime of the pipe.

Reduce costs for years to come

Once laid, a pipe coated internally and externally with Plascoat® PPA 571 Aqua will resist corrosion and remain maintenance free for many years.



Plascoat® PPA 571 Aqua is the result of many years of research and development and will help water companies reduce their costs



The smooth surface of Plascoat® PPA 571 Aqua enables nearly double the flow rate compared to cement-lined pipes

*Pressure drop tests performed by an independent test laboratory

†† For example 10% weight saving for D600 type pipes

Our expertise - your guarantee

For over 60 years, Plascoat® has pioneered the science behind thermoplastic polyolefin coatings as well as the engineering knowledge on application and manufacturing.

You can be sure our products are of the highest standards in the industry, with multiple international and national certifications, approvals and affiliations.

Even with excellent coatings, know-how is still needed to create final client products. Our experienced technical staff are on hand to help you with your queries on work-flow, processing, coating properties, colour matching, application techniques, settings and recycling, and much more.

At Plascoat® we wish to bring you the best products with a world class technical service.



We will provide not only the best products, but also the best technical assistance



For more information regarding the technical service we can provide alongside your product orders, please contact your area sales manager.





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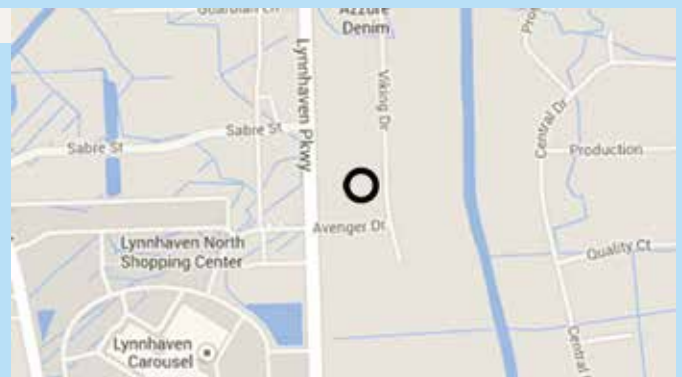
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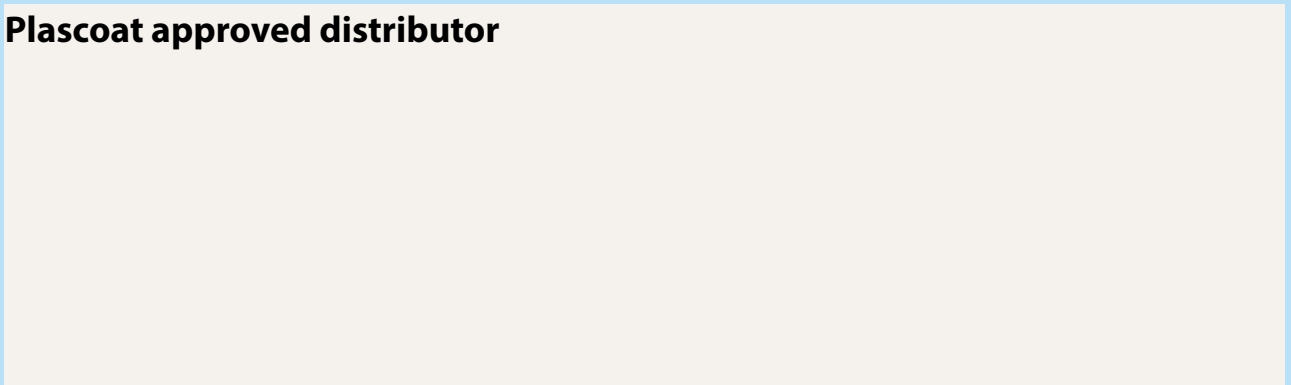
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Plascoat approved distributor





Plascoat®

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Thermoplastic coatings for water pipes and fittings



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www.plascoat.com

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