



Sanikom d.o.o., Poslovna cona A47, 4208 Šenčur, Slovenia

PRODUCT DATA SHEET **COATED FELT LINER**

Product Description

Designed for cost effective pipe rehabilitation, this needle punched polyester felt coated liner is manufactured undergoing a rigorous test regime prior to release as finished product to ensure optimum performance.

The coating is available in various finishes based on required end use, as follows:

Coating Types

- Standard Polyurethane
- Extra Resistant Polyurethane (PUXR)
- PVC
- Polypropylene

Impregnation Method

Vacuum impregnate using metering rollers to ensure correct resin addition.



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Product Types

Liner Type: Hot-Cure Eversion

Installation Method: Eversion using water or air

Resin Type	Coating Type	Curing Regime	
		Hot Water <90°C	Steam <90°C
Polyester / Vinyl Ester	Standard Polyurethane	✓	✓
	PUXR	X	X
	PVC	X	X
	Polypropylene	✓	✓
Epoxy	Standard Polyurethane	X	X
	PUXR	✓	✓
	PVC	*	*
	Polypropylene	✓	✓

*Suitable for use with specific epoxy resins. Consult Sanikom Technical Team for information.

Diameter Range: 70 to 2500 mm

Thickness Range: 1.5 to 100 mm

Length: Any length made to order



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Liner Type: Ambient / Warm Cure Eversion

Installation Method: Eversion using water or air

		Curing Regime		
Resin Type	Coating Type	Ambient	Warm Water <50°C	Warm Air Accelerated
Polyester / Vinyl Ester	Standard Polyurethane	✓	✓	✓
	PUXR	X	X	X
	PVC	✓	✓	✓
	Polypropylene	✓	✓	✓
Epoxy	Standard Polyurethane	✓	✓	✓
	PUXR	✓	✓	✓
	PVC	✓	✓	✓
	Polypropylene	✓	✓	✓

Diameter Range: 70 to 225 mm

Thickness Range: 3.0 to 6.0 mm

Length: Standard roll length 50m.
Bespoke length by special order.



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Liner Type: Hot Cure Drag In

Installation Method: Pull into pipe by hand or winch. Inflate liner to size at specified installation pressure using PVC coated fabric calibration hose.

Resin Type	Coating Type	Curing Regime	
		Hot Water <80°C	Steam <80°C
Polyester / Vinyl Ester	Standard Polyurethane	✓	✓
	PUXR	X	X
	PVC	X	X
	Polypropylene	✓	✓
Epoxy	Standard Polyurethane	X	X
	PUXR	✓	✓
	PVC	*	*
	Polypropylene	✓	✓

*Suitable for use with specific epoxy resins. Consult Sanikom Technical Team for information.

Diameter Range: 70 to 375 mm

Thickness Range: 3.0 to 6.0 mm

Length: Bespoke lengths made to order.



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Liner Type: Ambient / Warm Cure Drag In

Installation Method: Pull into pipe by hand or winch. Inflate liner to size at specified installation pressure using PVC coated fabric calibration hose.

Resin Type	Coating Type	Curing Regime		
		Ambient	Warm Water <50°C	Warm Air Accelerated
Polyester / Vinyl Ester	Standard Polyurethane	✓	✓	✓
	PUXR	X	X	X
	PVC	✓	✓	✓
	Polypropylene	✓	✓	✓
Epoxy	Standard Polyurethane	✓	✓	✓
	PUXR	✓	✓	✓
	PVC	✓	✓	✓
	Polypropylene	✓	✓	✓

Diameter Range: 70 to 375 mm

Thickness Range: 3.0 to 6.0 mm

Length: Standard roll length 50m.
Any length made to order.



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Points to Note:

1. Due to sizing requirements at manufacture, customer must specify intended use as eversion or drag in liner, as well as resin type.
2. Advice on resin compatibility for this product is offered as general guidance only. Customers must not assume compatibility for specific resin types.

Please consult Sanikom Technical Team for further advice.

3. When in use, the liner must be supported outside the pipe.
4. Customer must always use the liner as recommended by Sanikom. Please contact the Sanikom Technical Team for help and advice especially where product is being used outside recommended conditions.

Storage/Handling:

The following are storage recommendations:

1. Avoid extremes of temperature.

Freezing may cause the coating structure to degrade locally, especially areas where the coating is in tension or compression – at bends and edges, and immediately adjacent to seam welds.

Recommended storage temperature 5°C – 35°C.

Shelf life at this temperature: in excess of 1 year.

2. Avoid extremes of humidity

Very high relative humidity (especially at high temperature such as tropical countries) will accelerate the hydrolysis of the polyurethane coating, consequently reducing the shelf life.

Recommended storage humidity 25% rh – 65% rh.

Shelf life at 65%, 35°C: 1 year.



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3. Avoid prolonged wet storage

As with high humidity, the coating is more susceptible to degradation at higher temperatures, and even further susceptible if pH of liquid in contact is significantly above or below 7.

Wet storage is not recommended.

4. Avoid direct sunlight or incident UV radiation

Prolonged exposure to ultra violet light will accelerate the degradation of the coating.

It is recommended that liners remain in the original packaging until they are required for use. Failing this, the liner should be covered to prevent exposure.

5. Mechanical damage should be avoided

In order to ensure that the liner is not damaged, the following recommendations should be followed:

- a) Ensure that liner is not placed directly onto grit or gravel floor – sweep and cover floor first.
- b) Ensure personnel are instructed not to walk on the liner.
- c) Handle liner with care.
- d) Ensure nip rollers are clean, and liner is not in contact with any sharp edges or snags anywhere during impregnation and installation.
- e) Large liners will require special handling considerations (especially when wet-out), as their weight will preclude manual handling. Cranes or conveyors may be required. If a liner is to be lifted with a crane sling, it is important that the sling should be sufficiently wide to prevent it 'biting' into the liner. It should be set up in such a way that the sling does not grip the liner (i.e., both loops of the sling onto the crane hook).



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6. Styrene and Chemical attack

Avoid prolonged contact with solvents and chemicals.

On impregnation with styrene-based resin, the solvent / monomer may start to swell the coating, giving an orange peel appearance, in time; this effect will increase to severe wrinkling (volumetric expansion of 60%).

If the contact time is sufficient, the coating will feel tacky. At this stage, the product should not be used.

Recommended shelf life after impregnation will vary dependent on the proportion of styrene in the resin, the nature and proportion of thixotropes, inhibitors, accelerators and catalysts, and the storage temperature.

As a general rule, the impregnated liner should be stored below 10°C. The typical shelf life at this temperature, with a polyester resin system, is maximum 7 days. With some resin systems, this shelf life is reduced to less than 24 hours. If using an unfamiliar system, it is recommended a section of coated felt is soaked in resin and assessed periodically to determine shelf life. With experience, this may be judged visually by the degree of wrinkling.