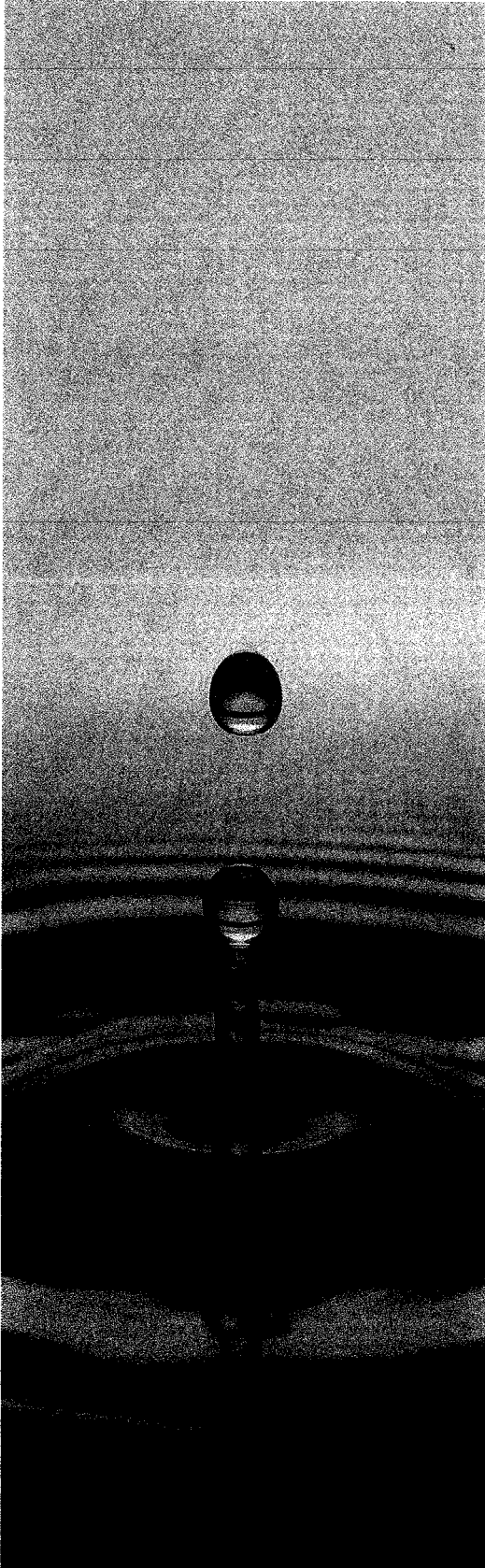




aeonTM
PTL
Potable Tank Liner

aeonTM
PTR
Potable Tank Reinforced



AEON PTL

AEON PTR

As Australia's leader in flexible membrane liner technology, Nylex is proud to introduce Aeon PTL and Aeon PTR, a breakthrough in flexibility, performance and value.

Nylex Aeon PTL and Aeon PTR are flexible membrane liners that meet the demands of the specialty tank liner market for high performance, ease of fabrication and outstanding life and chemical resistance. Aeon is a high molecular weight polymer sheet made by Nylex utilising the very latest DuPont Elvaloy® technology.

DuPont Elvaloy® technology is proven by many years of industrial applications, particularly in the USA. Nylex is utilising the latest Elvaloy® technology which offers low volatility, ease of compounding and manufacturing and ultimately a superior product to the end user.

Combining the advantages of certified potability and excellent chemical resistance, Aeon PTL and Aeon PTR are available from selected Nylex distributors in forms specially prefabricated to suit your needs.

FEATURES AND BENEFITS:

- **Made in Australia by Nylex:** As Nylex products, Aeon PTL and Aeon PTR come with the confidence of full Nylex technical and warranty backup and local stocks.
- **Fifteen Year Warranty:** Aeon PTL and Aeon PTR are backed by warranties of up to 15 years when used as a potable water tank liner in a covered tank (refer to the details and conditions available from Nylex through the distributors/fabricators). Warranties for other applications will be subject to review under the Nylex "Proposed Use Form" system.
- **Easy to fabricate and install:** Aeon PTL and Aeon PTR can be easily fabricated by either thermal welding or by high frequency welding. It can be handled and fabricated in virtually the same manner as traditional PVC liner materials. This ease of handling and flexibility make it ideal for applications such as pre-fabricated tank lining.
- **Potable:** Aeon PTL and Aeon PTR are specially formulated to meet stringent potability approval standards and is certified by the Australian Water Quality Centre to meet AS 4020 (Int) - 1994 *Products for Use with Water Intended for Human Consumption with regard to their Effect on the Quality of the Water.*
- **Oil, Fuel and Chemical Resistant:** Resistant to a wide range of fuels and chemicals, Aeon PTL and Aeon PTR may be used in difficult environments such as relining an old tank over previous chemical coatings, storing process water that is contaminated by hydrocarbons and other demanding applications. (Refer to the chemical resistance chart and fuel details included in this document).
- **Long Life:** Due to their unique molecular structure, Aeon PTL and Aeon PTR are very resistant to the hardening and degradation that can affect other materials. They are long life products that will save substantial renovation costs over the life of the installation when compared to conventional tank liner materials.



Elvaloy® KEE

ketone ethylene ester

- **Resistant to Microbial Attack:** Aeon PTL and Aeon PTR have excellent resistance to microbial attack (when independently tested to AS 1157 - 1978 modified) without the need for anti-microbial additives. Microbes in soil and water can cause conventional liners to harden and degrade, while Aeon is resistant to this common problem.
- **Heat Resistance:** Once again, the unique composition of Aeon PTL and Aeon PTR makes them resistant to degradation from the heat that can build up in a tank installation.
- **Low Temperature Tolerance:** Aeon PTL and Aeon PTR are resistant to cold temperatures down to minus 30° Celsius, making them a trouble free choice whatever the environment.
- **Puncture and Abrasion Resistant:** The natural flexibility and elasticity of Aeon PTL and Aeon PTR give them very good resistance to the puncture and abrasion stresses that can occur during fabrication and installation.
- **UV Life:** Aeon PTL and Aeon PTR have been formulated for long term use in an enclosed environment. They have a moderate UV resistance, with an expected exposed life exceeding 5 years.

SPECIAL FEATURES OF AEON PTR

High Tensile and Tear Strength: Aeon PTR is reinforced with high tenacity 1100 decitex Polyester scrim to provide high tensile and tear strength for demanding applications where predictable structural performance is required. For instance, lining high tanks.

High Puncture Resistance: Especially useful where used with poor or uncertain substrates.

High Creep Resistance: For use in high tanks.

High Thermal Stability: Lays flat for no wrinkles or heat induced expansion/contraction.

Encapsulated Edges: Both edges of Aeon PTR are totally encapsulated to protect the scrim from attack by unfriendly chemicals and also to prevent leakage. (see notes on "Fabrication" below regarding cut edges).

APPLICATIONS:

Nylex Aeon PTL and Aeon PTR are primarily designed as high performance materials to be used for the manufacture of prefabricated tank liners for potable water and contaminated water. They may also be used, subject to suitability, for containment of other chemicals and solutions.

FABRICATION:

Fabrication is possible using either thermal welding (hot wedge, hot air) or high frequency welding. Aeon PTR should have all cut edges sealed with a tape weld where necessary to prevent chemical attack of the scrim and to prevent leaking under pressure. Where exposed to high temperatures (over 50 Celsius), **all cut edges should be sealed to prevent water or chemical ingress into the scrim.**

AVAILABILITY:

Aeon PTL and Aeon PTR are available through selected Fabricators and Distributors throughout Australia and New Zealand. These companies will provide Aeon PTL and Aeon PTR prefabricated to suit the required applications.

FORMAT:

Aeon is supplied to fabricators/distributors in the following form:

PTL

Colour: Grey
Gauge: 0.75mm nominal gauge
Emboss: Nylex 458 (with Nylex logo)
Width: 2050mm ± 5mm
Roll Length: 200m nominal
Core Type: 75mm i.d. chargeable steel core
Roll Weight: approx 365 kg.
Roll Diameter: approx 450mm
Product Code: APTL75205GY

PTR

Colour: Grey
Gauge: 0.9mm nominal gauge
Emboss: Nylex 458 (with Nylex logo)
Width: 2000mm ± 5mm
Roll Length: 100m nominal
Core Type: 75mm i.d. chargeable steel core
Roll Weight: approx 200 kg.
Roll Diameter: approx 300mm
Product Code: APTR90200GY

**Made in Australia by Nylex Polymer Products.
Nylex Corporation Pty. Ltd. A.C.N. 084 725 002**

Disclaimer:

Nylex provides the information contained herein in good faith, based upon information provided to it by its suppliers. Nylex believes this information to be reliable. However, Nylex accepts no liability either direct or indirect for any loss or consequential loss that may result from the application of this information to any project. Purchasers must conduct their own tests to ensure that the products are suitable for their particular purposes. Unless otherwise provided in written contracts, products are sold without warranties or conditions expressed or implied. Any comments made regarding project construction are made on an informative basis not as a recommendation.

All questions regarding project design should be referred to a competent civil engineer.



CHEMICAL RESISTANCE OF AEON

The following table provides a starting point to determine whether AEON is appropriate in contact with some common industrial chemicals. These ratings are offered as a guide only. Nylex reserves the right to request a 28 day immersion test (as per ASTM D543-87 modified) prior to any recommendation or assessment being given. *(Note: All exposed edges of Aeon PTR must have scrim sealed).*

Acetic acid (5%)	B	Gasoline	B	Potassium chloride	T T A B A A T T T A T A C T T T X C A X A A A A X T
Acetic acid (50%)	C	Gear oil	T	Potassium sulphate	
Acetone	C	Glycerine	A	SAE-30 motor oil	
Ammonium Hydroxide (conc)	A	Hydraulic fluid - Petroleum based	A	Salt water (25%)	
Ammonium Sulphate	T	Hydraulic fluid - Phosphate ester based	C	Sea water	
Ammonium Phosphate	T	Hydrocarbon Type II (40% aromatic)	C	Sewage	
Animal oil	A	Hydrochloric acid (10%)	A	Soap solution (1%)	
Aqua Regia	X	Hydrochloric acid (50%)	A	Sodium acetate solutions	
Asphalt	T	Hydrofluoric acid (5%)	A	Sodium bisulphite solution	
ASTM Fuel A	A	Hydrofluoric acid (50%)	A	Sodium hydroxide (60%)	
ASTM Fuel B	A	Hydrofluosilicic acid (30%)	A	Sodium phosphate	
ASTM Fuel C	B	Isooctane	A	Sulphuric acid (50%)	
ASTM Fuel F	A	Isopropyl alcohol	T	Sulphuric acid (97%)	
ASTM #1 oil	A	Jet fuel A	A	Tannic acid (10%)	
ASTM #2 oil	A	JP-4 Jet fuel	A	Tannic acid (50%)	
ASTM #3 oil	A	JP-5 Jet fuel	A	Tetrahydrofuran	
Automatic transmission fluid	T	JP-8 Jet fuel	A	Toluene	
Benzene	X	Kerosene	A	Transformer oil	
Butyl alcohol	T	Lactic acid	T	Tributyl phosphate	
Calcium Chloride (30%)	A	Linseed oil	A	Turpentine	
Calcium Hydroxide	T	Magnesium chloride	T	Urea formaldehyde	
Chlorine solution (20%)	A	Magnesium hydroxide	T	Vegetable oil	
Chlorosulphonic acid	X	Methanol	A	Water (100°C)	
Corn oil	A	Methyl ethyl ketone	X	Xylene	
Crude oil	A	Methylene chloride	C	Zinc chloride	
Cyclohexane	B	Mineral oil	T		
Ethanol	A	Mineral spirits	A		
Ethyl acetate	C	Naptha	A		
Ethyl alcohol	A	Nitric acid (5%)	B	A = Little or no effect	
Ethylene dichloride	X	Nitric acid (50%)	C	Maybe considered for prolonged contact	
Ethylene Glycol	A	Perchloroethylene	C	B = Somewhat resistant	
Fertiliser solution	A	Phenol	X	Maybe considered for occasional contact at best	
Formaldehyde	X	Phenol formaldehyde	B	C = Not resistant	
Fuel oil #2	A	Phosphoric acid (50%)	A	Inappropriate for contact with this chemical	
Fuel oil #6	A	Phosphoric acid (100%)	C	T = No data	
Furfural	X	Phthalate plasticiser	C	X = No data	
				Likely to have a severe effect	

TECHNICAL SPECIFICATION: AEON PTL

Property	Test Method	Nominal Values
Gauge	ASTM D792.A	0.75mm±7%
Tensile Strength	ASTM D882.A*	14 MPa min.
Elongation at Break	ASTM D882.A*	275%
Tear Strength	ASTM D1004	45N/mm
Water Extraction	ASTM D1239	0.25% max.
Volatile Loss	ASTM D1203.A	0.70% max
Dimensional Stability (1 hr @82 deg C. L&T)	ASTM D1204	5% max.
Puncture Resistance	ASTM D4833-88	250N/mm
Cold Bend	ASTM D2136-94	-60°C

(*method uses 25mm marks)

TECHNICAL SPECIFICATION: AEON PTR

Property	Test Method	Nominal Values
Gauge	ASTM D 5199	0.9mm±10%
Weight	ASTM D 751 Method A NSF 54 Modified	950±100gsm
Tensile Strength L&T	ASTM D 751 Method A NSF 54 Modified	1000N min.
Elongation at Break L&T	ASTM D 751 Method A NSF 54 Modified	25% max
Tear Strength L&T	ASTM D 5884-95	200N min
Dimensional Stability (1 hr @82 deg C. L&T)	ASTM D1204	+/- 1%max.
Bond Strength	ASIM D 413 NSF 54 Modified	35N/25mm min
Puncture Resistance	ASTM D 4833-88	500N/mm
Potability	AS4020-1999	Conforms
Cold Bend	ASTM D2136-94	-60°C

ASTM REFERENCE FUELS

Reference Fuel A	Isooctane	100%		} Mild action on rubber vulcanizates and produces results of the same order as low swelling petrols of the highly paraffinic, straight run type.
Reference Fuel B	Isooctane	70%	Toluene 30%	
Reference Fuel C	Isooctane	50%	Toluene 50%.	
Reference Fuel F	Diesel Fuel, Grade 2 (Spec D 975)	100%		} Swells rubber vulcanizates to a lesser extent than Reference Fuel B

ASTM REFERENCE OILS

No 1	Aniline point 124 deg C	} The aniline point of a petroleum oil appears to characterise the swelling action of that oil on rubber vulcanizates. In general the lower the aniline point, the more severe the swelling action by the oil. These oils cover a range of aniline points commonly found in lubricating oils
No 2 (IRM902)	Aniline point 93 deg C	
No 3 (IRM903)	Aniline point 70 deg C	



QUALITY SYSTEM CERTIFIED TO AS/NZS ISO9001:1994 REG. NO. 6172

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