



BRANDS

NEW ZEALAND'S LEADING SUPPLIER OF
QUALITY PIPING & PLUMBING PRODUCTS



BY



K-FLEX

FIRE RETARDANT
NITRILE RUBBER
THERMAL
INSULATION



KEMBLA

Insulation

DESIGN & INSTALLATION GUIDE

INTRODUCTION

MM KEMBLA INSULATION YOUR COMPLETE INSULATION SOLUTION BACKED BY MM KEMBLA'S QUALITY, RELIABILITY AND SERVICE

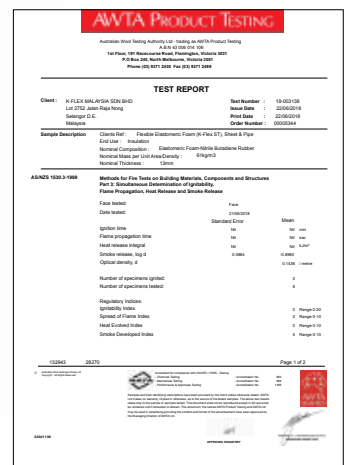
MM Kembla has been providing our customers with the highest quality and most reliable products and service for 100 years and is pleased to announce that we have partnered with global insulation leader L'isolante K-Flex to bring you our new range of flexible elastomeric thermal insulation.

MM Kembla Insulation is a fire retardant, multi-purpose flexible elastomeric thermal insulation with a built in vapour barrier and a closed cell structure. This makes MM Kembla Insulation highly resistant to water vapour transmission and enables the product to maintain a high level of energy conservation efficiency.

MM Kembla Insulation is dust, fibre free and is HCFC–CFC free with an Ozone Depletion Potential (ODP) of zero. The impressive technical properties and supporting certifications and accreditations position MM Kembla Insulation as an ideal solution for any commercial, industrial, domestic, and marine and offshore applications. We offer a full comprehensive range that ensures MM Kembla Insulation is your one stop insulation shop for all of your needs.

WHY USE MM KEMBLA INSULATION: THE KEMBLA DIFFERENCE

- ISO 9001:2000 Registered with over a thousand additional domestic and international certificates
- A wide range of tube and sheet with self adhesive and aluminium foil available
- Light weight and flexible for easy and speedy installation with low maintenance resulting in time and cost savings
- CFC and HCFC free with ozone depletion potential of zero
- Non-corrosive, smoke and fire retardant material
- Low thermal conductivity and high μ factor for effective control of condensation and insulating against heat loss and heat gain
- FM Approved
- Unrivalled Distribution Footprint
 - National Network of Distribution warehouses that reach every major state and territory
- MM Kembla's National Sales Force
 - providing on the ground support
 - National customer Service Centre
- Backed by MM Kembla's reputation for high quality products, service and customer care for over 100 years.



TECHNICAL SPECIFICATIONS

MM Kembla Insulation conforms to the requirements of the Building Code of Australia (Vol) 1, of the National Construction Code (NCC) 2015. MM Kembla Insulation is a closed cell extruded nitrile based rubber that exhibits better thermal conductivity as the air inside the closed cells has lower mobility than that produced in open Cells.

Vapour Diffusion into the insulation is much lower allowing the thermal conductivity to be guaranteed longer. MM Kembla Insulation is FM Approved assuring customers that our product has been objectively tested and conforms to the highest national and international standards.

TECHNICAL SPECIFICATION FOR MM KEMBLA INSULATION ST		
Construction	Closed Cell	
Density	45-70kg/m3	
Temperature Range	-200 C to +116 C	
Thermal Conductivity	$\lambda=0.034W/(m.k)$ @ +20° C $\lambda=0.032W/(m.k)$ @ 0° C $\lambda=0.028W/(m.k)$ @ +20° C	AS4859.1 EN12667 DIN 52612
Water Vapour Diffusion Resistance Factor	$\mu \geq 10,000$	EN12086 DIN52612
Fire Performance	Class 1 – Complies with the fire hazard requirements of the Building Code of Australia	AS1530.3
Reaction to Fire	Self Extinguishing	
Environmental	Zero Ozone Depleting Potential (ODP), Low VOC	
Fungal / Mold Resistance	Resistant	ASTM G21 Anti Microbial Greenguard Approved
Manufacturer	K-Flex	

CERTIFICATION AND TESTING

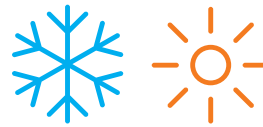
MM Kembla Insulation has been independently tested by NATA accredited laboratories. Our insulation is compliant to the Australian Building Code Boards (ABCB) National Construction Code (NCC) 2015 edition. MM Kembla Insulation also carries a number of international globally recognised certifications.



KEMBLA INSULATION - ADVANTAGES

MM KEMBLA INSULATION IS A CLOSED CELL INSULATION WITH MANY ADVANTAGES OVER THE TRADITIONAL OPEN CELL AND PRODUCTS MADE OF WOOL OR FIBREGLASS:

- Closed Cell Insulation has a better thermal conductivity, because the air inside of the closed cells has a lower mobility than that produced in open cells.
- Vapour diffusion into the MM Kembla Insulation is much lower, thus the thermal conductivity will be guaranteed for longer.
- The closed cell promotes a natural inhibition of bacterial growth as bacteria cannot spread within the structure.



VERY LOW THERMAL CONDUCTIVITY
(λ FACTOR)

Thermal Conductivity is a measurement of the ability of a material to transmit heat. MM Kembla Insulation ST thermal conductivity is $\lambda = 0.032W/(m.K) @ 0^\circ C$. The thermal coefficient is the most important factor in the calculation as it focuses on energy saving. The lower the figure the better the thermal insulation.



HIGH WATER VAPOUR DIFFUSION
RESISTANCE (μ factor)

MM Kembla Insulation ST closed cell elastomeric insulation has a high water vapour diffusion resistance factor μ , to minimise water vapour penetration, ensuring excellent long term performance. The higher the resistance to the penetrations of water vapour (μ), the greater the consistency of performance. This is significant when insulating cold items where insulation thicknesses are chosen to achieve a surface temperature above the ambient dewpoint.



LOW FLAME SPREAD

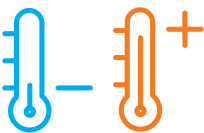
When Fire Tested MM Kembla Insulation does not generate flaming droplets and has a low fire propagation index. It is guaranteed to self extinguish in case of a fire and complies with the fire hazard requirements of the Building Code of Australia.

KEMBLA INSULATION - ADVANTAGES**NON-TOXIC PRODUCTS**

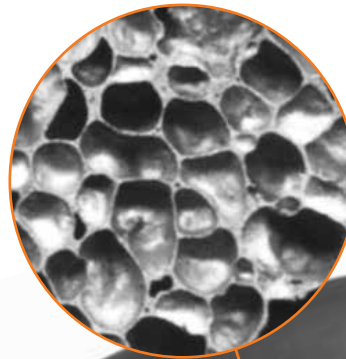
Many insulation materials are porous or fibrous. In these types of materials the presence of moisture and organic matter allow the growth of bacteria, mould, and fungi. MM Kembla Insulation is resistant to this and therefore helps contribute to the quality of the air that we breathe. We do our best to ensure that our products do not emit VOC's (volatile organic compounds) and have Zero ODP (Ozone Depletion Potential). Elastomeric Insulation such as MM Kembla Insulation is not made of fibrous material and does not release harmful particles into the air. Therefore our product is ideal for any application in public places such as schools and hospitals.

**FLEXIBILITY & EASE OF USE**

The ease of installation of MM Kembla Insulation is one key feature that sets our materials apart from other products on the market. Due to its flexibility and elasticity, MM Kembla Insulation is ideal for a variety of applications. Professionals will appreciate its extreme cleanliness as it does not leave traces and residues behind during installation that can help achieve savings in installation time.

**TEMPERATURE RANGE**

MM Kembla Insulation is suitable for applications ranging from -200° C to +116° C. Our strict quality and safety expectations ensure that our material is compatible with applications with the strictest of specifications.

**CLOSED CELL INSULATION****MM KEMBLA DIFFERENCE**

Established in 1916, we have been providing our customers with the highest quality and most reliable products and services for 100 years. MM Kembla provides you with the security of knowing you are taking no chances.

PRODUCT RANGE

MM KEMBLA INSULATION ST FIRE RETARDANT - 9MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
80500	6	1/4	9mm	158
80502	10	3/8	9mm	110
80504	13 AS	1/2	9mm	100
80506	15 NZS	5/8	9mm	94
80508	20 AS	3/4	9mm	68
80510	22 NZS	7/8	9mm	64
80512*	25 AS	1	9mm	54
80514	28 NZS	1 1/8	9mm	49
80516*	32 AS	1 1/4	9mm	42
80518	35 NZS	1 3/8	9mm	38
80520*	40 AS	1 1/2	9mm	34
80522	42 NZS	1 5/8	9mm	30
80526*	50 AS	2	9mm	24
80528*	54 NZS	2 1/8	9mm	23
80530*	60 NZS	2 3/8	9mm	23
80532*	67 NZS/AS	2 5/8	9mm	23

* Available on request. AS = AS1432. NZS = NZS3501.

MM KEMBLA INSULATION ST FIRE RETARDANT - 13MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
80546	6	1/4	13mm	100
80548	10	3/8	13mm	76
80550	13 AS	1/2	13mm	64
80552	15 NZS	5/8	13mm	56
80554	20 AS	3/4	13mm	50
80556	22 NZS	7/8	13mm	49
80558	25 AS	1	13mm	40
80560	28 NZS	1 1/8	13mm	36
80562	32 AS	1 1/4	13mm	30
80564	35 NZS	1 3/8	13mm	29
80566	40 AS	1 1/2	13mm	25
80568	42 NZS	1 5/8	13mm	25
80572	50 AS	2	13mm	20
80574	54 NZS	2 1/8	13mm	20
80576*	60 NZS	2 3/8	13mm	16
80578	67 NZS/AS	2 5/8	13mm	15
80582	76 AS	3	13mm	15
80584	79	3 1/8	13mm	12
80588	100	4	13mm	8
80590	114	4 1/2	13mm	8

* Available on request. AS = AS1432. NZS = NZS3501.

MM KEMBLA INSULATION ST FIRE RETARDANT - 19MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
80592*	6	1/4	19mm	50
80594	10	3/8	19mm	40
80596	13 AS	1/2	19mm	36
80598	15 NZS	5/8	19mm	36
80600	20 AS	3/4	19mm	30
80602	22 NZS	7/8	19mm	30
80604	25 AS	1	19mm	25
80606	28 NZS	1 1/8	19mm	24
80608	32 AS	1 1/4	19mm	20
80610	35 NZS	1 3/8	19mm	20
80612*	40 AS	1 1/2	19mm	18
80614	42 NZS	1 5/8	19mm	16
80618	50 AS	2	19mm	12
80620	54 NZS	2 1/8	19mm	12
80622	60 AS	2 3/8	19mm	11
80624	67 NZS/AS	2 5/8	19mm	11
80628*	76 AS	2 3/8	19mm	9
80630	79	2 5/8	19mm	9
80632*	89	2	19mm	8
80634	100	4	19mm	7
80636	114	4 1/2	19mm	7

* Available on request. AS = AS1432. NZS = NZS3501.



PRODUCT RANGE

MM KEMBLA INSULATION ST FIRE RETARDANT - 25MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
80638*	6	1/4	25mm	30
80640*	10	3/8	25mm	26
80642*	13 AS	1/2	25mm	25
80644	15 NZS	5/8	25mm	25
80646	20 AS	3/4	25mm	20
80648	22 NZS	7/8	25mm	19
80650	25 AS	1	25mm	16
80652	28 NZS	1 1/8	25mm	16
80654	32 AS	1 1/4	25mm	16
80656	35 NZS	1 3/8	25mm	15
80658*	40 AS	1 1/2	25mm	11
80660	42 NZS	1 5/8	25mm	12
80664*	50 AS	2	25mm	10
80666	54 NZS	2.125	25mm	9
80668*	60 AS	2 3/8	25mm	9
80670	67 NZS/AS	2 5/8	25mm	8
80674*	76 AS	3	25mm	6
80678*	89	3.5	25mm	6

* Available on request. AS = AS1432. NZS = NZS3501.

MM KEMBLA INSULATION ST FIRE RETARDANT - 32MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
80686*	10	3/8	32mm	20
80688*	13 AS	1/2	32mm	18
80690*	15 NZS	5/8	32mm	18
80692*	20 AS	3/4	32mm	16
80694*	22 NZS	7/8	32mm	12
80696*	25 AS	1	32mm	12
80698*	28 NZS	1 1/8	32mm	12
80700*	32 AS	1 1/4	32mm	11
80702*	35 NZS	1 3/8	32mm	10
80704*	40 AS	1 1/2	32mm	8
80706*	42 NZS	1 5/8	32mm	9
80712*	54 NZS	2.125	32mm	7
80714*	60 AS	2 3/8	32mm	6
80716*	67 NZS/AS	2 5/8	32mm	4
80720*	76 AS	3	32mm	4
80724*	89	3 1/2	32mm	4
80728*	114	4 1/2	32mm	3

* Available on request. AS = AS1432. NZS = NZS3501.

MM KEMBLA INSULATION ST FIRE RETARDANT - 38MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
80736*	15 NZS	5/8	38mm	11
80738*	20 AS	3/4	38mm	11
80740*	22 NZS	7/8	38mm	9
80742*	25 AS	1	38mm	8
80744*	28 NZS	1 1/8	38mm	8
80746*	32 AS	1 1/4	38mm	8
80748*	35 NZS	1 3/8	38mm	8
80752*	42 AS	1 5/8	38mm	6
80758*	54 NZS	2.125	38mm	5
80760*	60 AS	2 3/8	38mm	4
80762*	67 NZS/AS	2 5/8	38mm	4
80766*	76 AS	3	38mm	4
80770*	89	3 1/2	38mm	4
80774*	114	4 1/2	38mm	3

* Available on request. AS = AS1432. NZS = NZS3501.

MM KEMBLA INSULATION ST FIRE RETARDANT - 50MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
80786*	22 NZS	7/8	50mm	6
80788*	25 AS	1	50mm	5
80790*	28 NZS	1 1/8	50mm	5
80794*	35 NZS	1 3/8	50mm	4
80798*	42 AS	1 5/8	50mm	4
80800*	48	1 7/8	50mm	4
80804*	54 NZS	2 1/8	50mm	4
80806*	60 AS	1 3/8	50mm	4
80812*	76 AS	3	50mm	3
80816*	89	3 1/2	50mm	3
80820*	114	4 1/2	50mm	2

* Available on request. AS = AS1432. NZS = NZS3501.

PRODUCT RANGE



MM KEMBLA INSULATION CONTINUOUS COIL - FIRE RETARDANT - 9MM WT

Product Code	Insulation ID		Wall Thickness	Carton Mtrs
	mm	inch		
85940*	6	1/4	9mm	80
85941*	10	3/8	9mm	60
85942*	13 AS	1/2	9mm	50
85943*	15 NZS	5/8	9mm	40
85944*	20 AS	3/4	9mm	40
85945*	22 NZS	7/8	9mm	30
85946*	28 NZS	1 1/8	9mm	20

* Available on request. AS = AS1432. NZS = NZS3501.

MM KEMBLA INSULATION CONTINUOUS COIL - FIRE RETARDANT - 25MM WT

Product Code	Insulation ID		Wall Thickness	Carton Mtrs
	mm	inch		
81169	15 NZS	5/8	25mm	25
81200	22 NZS	7/8	25mm	19
81202	25 AS	1	25mm	20
81204	28 NZS	1 1/8	25mm	16
81208	35 NZS	1 3/8	25mm	12
81212	42 NZS	1 5/8	25mm	11
81218	54 NZS	2 1/8	25mm	9

AS = AS1432. NZS = NZS3501.

MM KEMBLA INSULATION CONTINUOUS COIL - FIRE RETARDANT - 13MM WT

Product Code	Insulation ID		Wall Thickness	Carton Mtrs
	mm	inch		
85950*	10	3/8	13mm	40
85951*	13 AS	1/2	13mm	40
85952	15 NZS	5/8	13mm	30
85953	20 AS	3/4	13mm	30
85954*	28 NZS	1 1/8	13mm	15

* Available on request. AS = AS1432. NZS = NZS3501.

MM KEMBLA INSULATION PRE-CUT INSULATION SHEETS - FIRE RETARDANT

Product Code	Insulation Thickness		Width x Length	Carton Sheets
	mm	inch		
85961*	10	3/8	1m x 1.22m	26
85962	13 AS	1/2	1m x 1.22m	20
85963*	20 AS	3/4	1m x 1.22m	14
85964	25 AS	1	1m x 1.22m	10
85965*	32 AS	1 1/4	1m x 1.22m	8
85966*	40 AS	1 1/2	1m x 1.22m	7
85967*	50 AS	2	1m x 1.22m	4

* Available on request. AS = AS1432. NZS = NZS3501.



PRODUCT RANGE

MM KEMBLA INSULATION SELF SEAL FIRE RETARDANT - 9MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
81056*	13 AS	1/2	9mm	90
81058*	15 NZS	5/8	9mm	84
81060*	20 AS	3/4	9mm	68
81062*	22 NZS	7/8	9mm	64
81064*	25 AS	1	9mm	54
81066*	28 NZS	1 1/8	9mm	49
81068*	32 AS	1 1/4	9mm	38
81070*	35 NZS	1 3/8	9mm	38

* Available on request. AS = AS1432. NZS = NZS3501.

MM KEMBLA INSULATION SELF SEAL FIRE RETARDANT - 13MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
81102	13 AS	1/2	13mm	64
81104	15 NZS	5/8	13mm	56
81106	20 AS	3/4	13mm	52
81108	22 NZS	7/8	13mm	49
81110	25 AS	1	13mm	40
81112	28 NZS	1 1/8	13mm	39
81114	32 AS	1.25	13mm	29
81116	35 NZS	1.375	13mm	29
81120	42 NZS	1 5/8	13mm	24
81126	54 NZS	2 1/8	13mm	20
81130	67 NZS/AS	2 5/8	13mm	13
81134	76 AS	3	13mm	13
81136	79	3 1/8	13mm	15
81142	114	4 1/2	13mm	8

* Available on request. AS = AS1432. NZS = NZS3501.

MM KEMBLA INSULATION HT FIRE RETARDANT - 13MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
80872	13 AS	1/2	13mm	64
80876	20 AS	3/4	13mm	52

AS = AS1432. NZS = NZS3501.

Other sizes available on request.

MM Kembla – HT is constructed of EPDM (Ethylene Propylene Diene Monomer Synthetic Rubber).

Suitable for applications with service temperatures from -50C and up to 150C.



MM KEMBLA INSULATION SELF SEAL FIRE RETARDANT - 19MM WT

Product Code	Insulation ID		Wall Thickness	Carton Quantity
	mm	inch		
81150	15 NZS	5/8	19mm	30
81152	20 AS	3/4	19mm	30
81156	25 AS	1	19mm	25
81158	28 NZS	1 1/8	19mm	24
81160	32 AS	1 1/4	19mm	20
81162	35 NZS	1 3/8	19mm	18
81164	40 AS	1 1/2	19mm	16
81166	42 NZS	1 5/8	19mm	16
81172	54 NZS	2 1/8	19mm	12
81176	67 NZS/AS	2 5/8	19mm	9
81182	79	3 1/8	19mm	7
81188	114	4 1/2	19mm	6

* Available on request. AS = AS1432. NZS = NZS3501.



PRODUCT RANGE - ACCESSORIES



INSULATION FOAM TAPE		
Product Code	Product Description	Carton Quantity
85972	Insulated Tape - 3mm x 48mm x 9.14m	24



ALUMINIUM TAPE		
Product Code	Product Description	Carton Quantity
85973	Aluminium Foil Tape - 48mm x 45m	24
85974	Aluminium Foil Tape - 60mm x 45m	20
85975	Aluminium Foil Tape - 72mm x 45m	16
85980	Reinforced Aluminium Tape - 48mm x 50m	24
85981	Reinforced Aluminium Tape - 72mm x 45m	16

R-VALUES

MM KEMBLA INSULATION ST - R-VALUES

Nominal Pipe Size		Insulation Thickness (mm)						
inch	mm	9mm	13mm	19mm	25mm	32mm	38mm	50mm
1/4	6	0.50	0.81	1.33	1.90	2.39	3.18	4.23
3/8	10	0.44	0.70	1.14	1.63	2.06	2.75	3.66
1/2	12	0.41	0.65	1.06	1.51	1.90	2.54	3.39
5/8	15	0.39	0.61	1.00	1.42	1.79	2.39	3.19
3/4	20	0.37	0.59	0.95	1.35	1.70	2.27	3.03
7/8	22	0.36	0.57	0.91	1.29	1.63	2.17	2.90
1	25	0.35	0.55	0.88	1.25	1.57	2.09	2.79
1 1/8	28	0.35	0.54	0.86	1.21	1.52	2.02	2.70
1 1/4	32	0.34	0.52	0.83	1.17	1.46	1.95	2.60
1 3/8	35	0.33	0.51	0.81	1.14	1.43	1.90	2.53
1 1/2	40	0.32	0.50	0.78	1.09	1.36	1.81	2.40
1 5/8	42	0.32	0.50	0.78	1.09	1.36	1.81	2.40
2	50	0.32	0.48	0.76	1.06	1.32	1.74	2.31
2 1/8	54	0.31	0.48	0.74	1.03	1.28	1.69	2.24
2 3/8	60	0.31	0.47	0.73	1.01	1.25	1.65	2.18
2 5/8	67	0.31	0.46	0.71	0.99	1.22	1.60	2.12
3	76	0.30	0.45	0.70	0.97	1.19	1.56	2.05
3 1/8	80	0.30	0.45	0.70	0.96	1.18	1.54	2.03
3 1/2	89	0.30	0.45	0.68	0.94	1.15	1.51	1.98
4	101	0.30	0.44	0.68	0.94	1.15	1.51	1.98
4 1/2	114	0.30	0.44	0.66	0.90	1.10	1.43	1.87



R-value or Thermal resistance is a measure of the ability of a material to retard heat flow. The higher the R-value the higher the insulating value. The Building Code of Australia and several Australian standards specify R-values to help determine what insulation material and thickness should be used. The BCA lists the requested R-values for pipe insulation in Specification J5.



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**VAPOUR RESISTANT.
FIRE RETARDANT.
ENERGY SAVING.**

BY  **K-FLEX**



KEMBLA

Insulation

**CLOSED CELL
THERMAL INSULATION
FROM MM KEMBLA**



BRANDS

For further information please contact
your MM Brands representative,
customer service or visit our website.

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