**nmc's** Flexible Tube Insulation Product Range Thermoplastic and Elastomeric Flexible Foams for Frost Protection and Energy Conservation.

# Enlarged range of sizes compliant with Part L of the April 2010 Building Regulations





Ozone Depletion Potential of Zero (ODP Zero)





# Climaflex

## climaflex®« Product range

Climaflex Thermoplastic Flexible Foam Tube Insulation for Frost Protection and Energy Conservation in a Domestic Dwelling House

Climaflex 2 Metre Lengths								
Conne	Copper Tube		Iron Pipe		Wall Thickness (nominal)			
OD mm	ID mm	OD mm	ID ins	I.D. mm	9mm m/carton	13mm m/carton	19mm m/carton	25mm m/carton
15	13.6	-	-	15	380	256	134	100
22	20.3	21.3	1/2	22	250	180	108	80
28	26.2	26.9	3/4	28	190	140	96	66
35	32.6	33.7	1	35	150	120	-	56
42	39.6	42.4	13/4	42	110	90	-	-
-	-	48.3	1½	48	90	70	-	-
54	51.6	-	-	54	70	66	-	-
-	-	60.3	2	60	66	48	-	-
<i>7</i> 6.1	<i>7</i> 3.1	76.1	2½	76	48	40	-	-

Carton Size: 2040mm x 600mm x 400mm

Climaflex 1 Metre Lengths								
Conne	Copper Tube Iron Pipe Wall Thickness (nominal)							
				I.D.	9mm	13mm	19mm	25mm
OD mm	ID mm	OD mm	ID ins	mm	m/carton	m/carton	m/carton	m/carton
15	13.6	-	-	15	190	128	67	50
22	20.3	21.3	1/2	22	125	90	54	40
28	26.2	26.9	3/4	28	95	70	48	33

Carton Size: 1040mm x 600mm x 400mm

### **Technical data Climaflex**

Material	Closed-cell polyethylene foam			
Thermal conductivity	$\begin{array}{l} \lambda = 0.034 \; \text{W/mK at}  0^{\circ} \text{C} \; \; \text{(DIN 52613)} \\ \lambda = 0.036 \; \text{W/mK at} \; 20^{\circ} \text{C} \; \; \text{(DIN 52613)} \\ \lambda = 0.038 \; \text{W/mK at} \; 40^{\circ} \text{C} \; \; \text{(DIN 52613)} \end{array}$			
Ignition resistance	BS 476, Part 12: 1991 no ignition source A and B			
Water vapour permeability	$\mu \ge 16.000 \text{ (DIN 52615)}$			
Water absorption	0.5% vol. after 40 days (DIN 53495)			
Temperature range	-45°C to +105°C			
Normal density	30 kg/m³			
Physiologically neutral - does not rot.				

we will succeed together



# Insul tube

# insul-tube® Product range

Insul Tube Elastomeric Flexible Foam Rubber Insulation for Condensation Control, Frost Protection and Energy Conservation

	Insul Tube Class O									
Copper Tube		Iron Pipe			Wall Thickness (nominal)					
OD ins	ID mm	OD ins	ID mm	I.D. mm	6mm m/carton	9mm m/carton	13mm m/carton	19mm m/carton	25mm m/carton	32mm m/carton
1/4	6	-	-	6	600	360	-	-	-	-
-	8	-	-	8	500	-	-	-	-	-
3%	10	-	-	10	430	320	190	106	-	-
1/2	12	-	-	12	350	280	172	100	-	-
%	15	_	_	15	300	240	154	86	60	32
-	18	-	-	18	-	190	30	-	-	-
7/8	22	1/2	21.3	22	216	156	110	74	42	32
11/4	28	3/4	26.9	28	150	124	86	58	40	24
1%	35	1	33.7	35	-	92	76	48	32	24
1%	42	11/4	42.4	42	-	70	56	40	24	24
-	-	1½	48.3	48	-	60	48	30	24	18
21/8	54	-	-	54	-	60	46	30	22	18
-	-	2	60.3	60	-	60	40	28	22	16
2%	67	-	-	76	-	-	34	28	18	12
3	76	2½	76.1	80	-	-	30	26	-	-
-	-	3	88.9	89	-	-	30	22	14	10
-	-	-	-	108	-	-	28	20	-	-
_	-	4	114.3	114	-	-	28	18	10	8

Carton Size: 2160mm x 405mm x 330mm

## Technical data Insul Tube Class 0

Temperature range	-40°C to +105°C
Thermal conductivity to DIN 52613 at mean temperature indicated	0.035 W/mK at 0°C 0.037 W/mK at 20°C 0.040 W/mK at 40°C
Fire performance: Surface Spread of Flame Fire Propagation	BS476 Part 7 - 1997 Class 1 BS476 Part 6 - 1989 1< 12-0 1 <sub>1</sub> < 6-0 Building Regulations Class 0
Water vapour permeability	BS4370 Part 2 1973 Method 8 0.25ngm/Nm
Water absorbtion after 28 days	DIN 53495 By volume 0.35%
Sound reduction	DIN 4109 Up to 32dB(A)
Application temperature	+5°C to +25°C

we will succeed together



### **Building Regulations Part L**

April 2010

**Domestic Heating Compliance Guide** 

Pipe Diameter mm	Maximum Heat loss W/M	nmc UK Ltd wall thickness mm for both heating and hot water
8	7.06	13
10	7.23	13
12	7.35	19
15	7.89	19
22	9.12	25
28	10.07	25
35	11.08	25

Note. Water temperature at 60°C with ambient still air temperature at 15°C

#### Water Regulations 1999 Frost Protection

The Minimum Thicknesses of **climaflex**®cand **insul-tube**® required to meet the Building Regulations are listed below

Pipe Dia. O/D (mm)	Normal Conditions	Extreme Conditions
15	25	32
22	19	25
28	19	25
35	9	13
42	9	13
54	9	9
76	9	9

These recommendations refer to a normally occupied domestic dwelling house. Absences in excess of 24 hours is not considered normal.

The thickness of insulation is considered the minimum to provide worthwhile protection against freezing using a Thermal Conductivity of 0.035 W/mK @ 0°C. "Normal Conditions" Inside the building and within the envelope of the

insulation where heat is normally provided.

"Extreme Conditions" Inside the building but outside the envelope of the insulation i.e. above the thermal insulation in a loft space, under a suspended ground floor. Area's without heating services, inside the structure of the building.

Please ask for details of our **climaflex**® and **insul-tube**® accessories to assist in the installation of our products.

we will succeed together

