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COMPANY PROFILE



INTRODUCTION

About Taysseer Trading

Established in 2009 along way in providing quality Products and Services has emerged as a strong supplier in the phenomenal growth of the KSA. Our collaboration with European American and Asian Companies reflects The initiative of the company to adapt to the ever increasing demands of its local clients which has provided the company with its competitive advantage.

The company's headquarter is located in Riyadh a showroom in Riyadh and Dammam and sales office in Riyadh and Dammam Due to its wide market reach it caters extensively to the needs of Air conditioning Refrigeration plumbing contractors of the region.

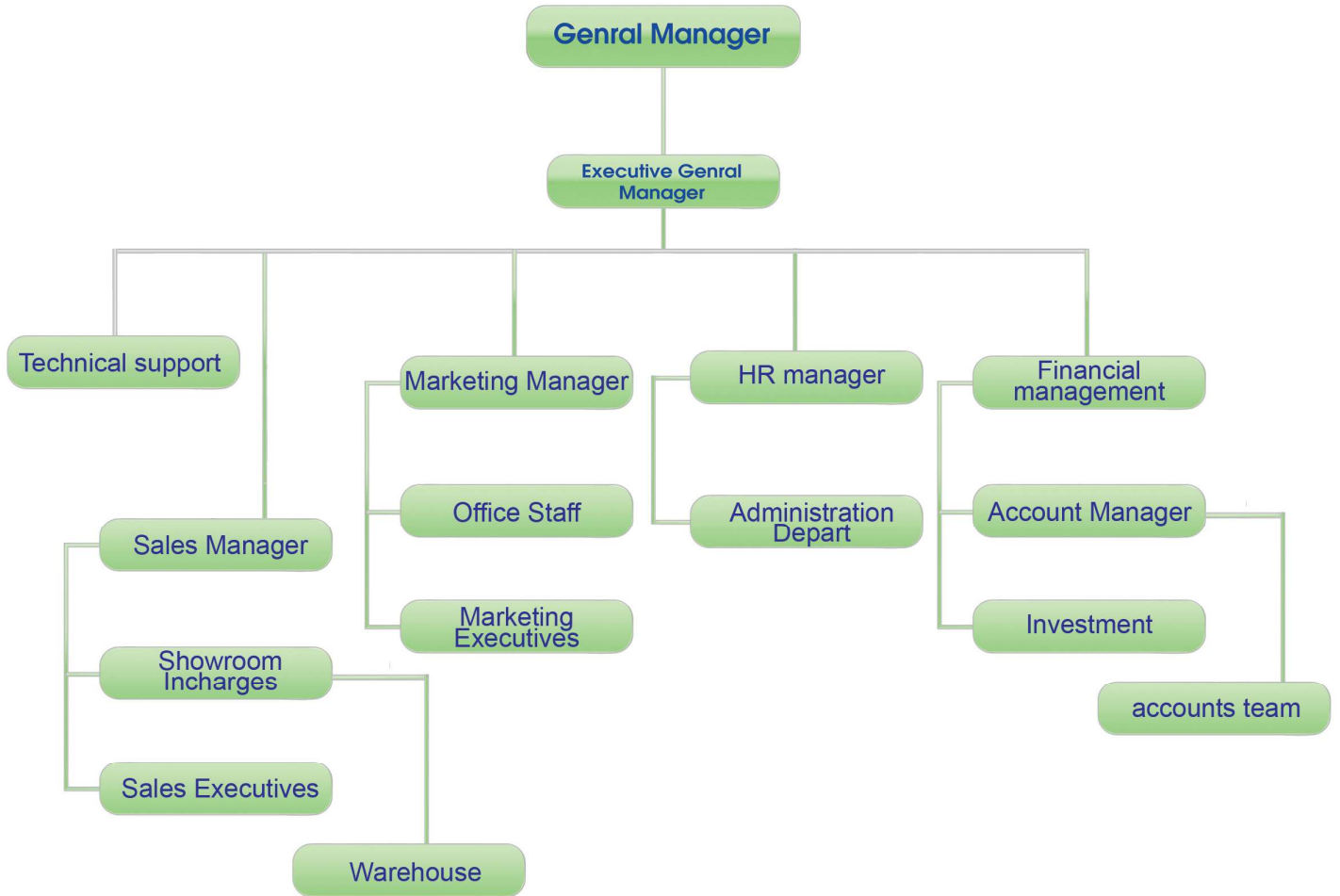
The company has been able to establish a strong and powerful presence in this region with a very good working relationship with most of the reputable HVAC/R consulting and contracting companies in the KSA.

Moreover the company is supported by a team of experienced dedicated Professionals who are well versed with the Air Conditioning Refrigeration business the is displayed in the company's involvement in some of the most Prestigious Projects in KSA.

We have storage of quality products like **INTERPIPE –NKK** seamless pipes . **SSP- JAZEERA** STEEL welded pipes . **HITACHI** threaded fitting . **BENKAN** welded fitting . **KOFCO** flange type **HATTER SELY – ECONOSTO – WATTS – SIEMENS** valves . **DUCTWRAP – DUCT LINER BORD – DUCT LINER PIPE Afico fiber glass insulation . ABRO TAPE U.S.A – ASPEN TAPE U.A.E – CLEAR TAPE** Duct accories. **FOSTER U.S.A – CRY COAT U.A.E – STAR U.A.E** Duct sealant . **PABCO** Aluminium jackting cladding . **FLEXABLE DUCT CONNECTOR – FLEXABLE DUCT –DUCT FLANG – SELF ADHESIVE PINS –DAMPERA ACCESSORIES – GASKET TAPE CRAY FLEX . CLIVIS HANGER –SWIVEL HANGER – CLAMP WITH RUBBER – CLAMP WITH OUT RUBBER – RISER CLAMP – THREDED ROD – NUTS – WASHER – DROP IN ANCHOR – RUBBER SUPPORT – U STRAP TST (TAYSSEER SERVICES TRADING)MADE I N INDIA**

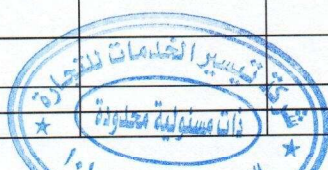


ORGANIZATION CHART



ITEM LIST

S.no.	Item Description	Size	Brand
FIBERGLASS INSULATION			Afeco, Kimmco
1	Fiberglass Duct Wrap Insulation FRK		"
2	Fiberglass Duct Board Insulation FRK		"
3	Fiberglass Duct LinerBoard AQL		"
4	Fiberglass Pipe Insulation FRK		"
DUCT & ACCESSORY			
6	Aluminium Jacketing		itw pabco
6	Insulated Flexible Duct 25Feet long / box	4"-14"Dia	Aeroduct, Caryflex, Isoflex
6	Un Insulated Flexible Duct 25Feet long / box	4"-14"Dia	Aeroduct, Caryflex, Isoflex
7	Flexible Duct Connector		Durodyne, Aeroduct
9	Rubber Insulation tube		Gulfoflex, Aeroduct
10	Copper Pipe (5.8Mtrs length)	5/8" to 4-1/8"Dia	Mueller, China
11	Copper Coil / Refrigeration tube (15Mtrs length)	1/4" to 1"Dia	Mueller, China
12	ADHESIVE		Foster, Starfix
	81 - 10	5Gal/Pail	
	30 - 60	5Gal/Pail	
13	Acrylic Duct Sealant (Tube) 32 - 17	24 Pcs/ Box	Foster, Asmaco
14	Acrylic Duct Sealant (Gallon) 32 - 17	1 Gal.	Foster
15	Self Adhesive Pin IF-114 (500Pcs/Box)	1-3/4", 2-1/2"	Durodyne, Aeroduct
16	Plain Aluminium Tape	2" & 3"	Abro, aspen, Asmaco
17	Reinforced Aluminium Tape/ FSK	2" & 3"	Abro, aspen, Asmaco
18	PVC pipe wrapping Tape 40ft (54 roll/ Box)	48mm	taiwan
19	Gasket Tape (50Roll/Box) 10 Mtrs	6mm x 20mm	cryflex
20	Self adhesive clear Tape (36Roll/Box)	2", 3" Width	blue bird, asmaco
21	Volume damper regulator set KS-195	3/8", 1/4", 1/2"	Durodyne, raha
22	Galv. Threaded rod 3mtr length	6mm - 12mm	india, china
23	Galv. Plain washer	6mm - 12mm	india, china
24	Galv. Hex Nut	6mm - 12mm	india, china
25	Drop in Anchor	6mm - 12mm	india, china
26	Duct Flange (5Mtr long)	25mm - 35mm	cry flange
27	Duct corner	25mm - 35mm	cry flange
28	Yellow Strap (16mm x 150mtrs)		aljazeera
29	Yellow strap Clips (300Pcs/Box)		taiwan



30	Pipe Clamp without rubber Liner	1/2" - 8"Dia	seven star ,leader
31	Pipe Clamp with rubber liner	1/2" - 8"Dia	seven star ,leader
32	Galvanized clevis Pipe Hanger	1/2" - 8"Dia	seven star ,leader
33	Galvanized swivel Hanger	1/2" - 8"Dia	seven star ,leader
34	Black Steel Seamless Pipe (ASTM- A53)	1/2" - 20"Dia	NKK, Interpipe
	Black Steel Seamless Fittings, Threaded		Hitachi
35	Elbow 90° Banded Equal	1/2" - 2"	
36	Elbow 45° Banded Equal	1/2" - 2"	
37	Tee Banded Equal	1/2" - 2"	
38	Tee Banded Reducing	3/4 x 1/2" to 2 x 1-1/2"	
39	Shoket Banded Equal with Ribs	3/4" - 2"	
40	Shoket Banded Reducing	3/4 x 1/2" to 2 x 1-1/2"	
41	Bushing	3/4 x 1/2" to 2 x 1-1/2"	
42	Nipples Banded	1/2" to 2"	
43	Union	1/2" to 2"	
	Black Steel Welded Fittings		Benkan
44	Elbow 90° L/R Sch.40	1" to 16"	
45	Elbow 45° L/R Sch.40	1" to 16"	
46	Tee Equal, Sch. 40	2-1/2 to 12"	
47	Tee Banded Reducing Sch.40	2-1/2 x 1" to 12" x 10"	
48	CONC. Reducer Sch.40	2 x 1-1/4" to 12" x 10"	
49	Flanges S/O. PN 16 RF DIN.	2" to 16"	
50	Blind 150Lbs RF	2-1/2" to 12"	
51	Blind PN 16 DIN	4" to 12"	

* Please ignore the missing sizes

[mohamed talaat attia](#)

Taysseer Services Trading Co.

Riyadh

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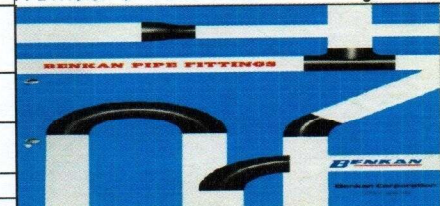


Hitachi Metals



WATTS INDUSTRIES

A Division of Watts Water Technologies Inc.



PARCO
Aluminum
Fittings



PRODUCT CATALOGUE





Arabian Fiberglass Insulation Company Ltd.
J.V. of Zamil Industrial & Owens Corning Corp.



AFICO Complete Thermal &
Acoustical Insulation

AFICO Complete Thermal & Acoustical Insulation

Product Code:
MBD



AFICO Mechanical Board Insulation

Thickness inches	R-Value ft ² .hr.°F/Btu
1.0	4.35
1.5	6.52
2.0	8.70
3.0	13.04
4.0	17.39

Std Density : 48 kg/m³ (3.0 lb/ft³)
Std Size : 1.2 m x 1.0 m
Facing : Foil Reinforced Kraft (FRK)
K-Value : 0.033 w/m.°C at 24°C
 (0.23 Btu.in/ft².hr.°F at 75°F)

APPLICATION AREAS

- Air-conditioning
- Heating Ductwork
- Machine Rooms
- Boiler Rooms

Product Code:
DL



AFICO Duct Liner

ACOUSTICAL PERFORMANCE		
Density Kg/m ³	Thickness mm	NRC
	25	0.65
16	38	0.75
	50	0.80
	25	0.75
24	38	0.90
	50	0.95
	25	0.85
48	38	0.95
	50	1.05

Density K-Value (at 24°C)

16	0.039
24	0.035
48	0.031

Facing: Black Glass Tissue (BGT)

APPLICATION AREAS

- HVAC work
- Perforated Suspended
- Ceilings Studios
- Auditorium Rooms
- Generators Rooms

Product Code:
FDW



AFICO Faced Duct Wrap

Density Kg/m ³	Thickness mm (inch)	K-Value w/m.°C (at 24 °C)	R-Value M ² .°C/w
12	(.75) 25 (1)	0.04 (0.28)	.625 (3.57)
12	(.75) 50 (2)	0.04 (0.28)	1.25 (7.14)
16	(1.0) 25 (1)	0.039 (0.27)	.64 (3.7)
16	(1.0) 50 (2)	0.039 (0.27)	1.28 (7.4)
24	(1.5) 25 (1)	0.035 (0.24)	.714 (4.167)
24	(1.5) 50 (2)	0.035 (0.24)	1.282 (8.33)
48	(3) 25 (1)	0.031 (0.22)	0.758 (4.35)
48	(3) 50 (2)	0.031 (0.22)	1.515 (8.696)

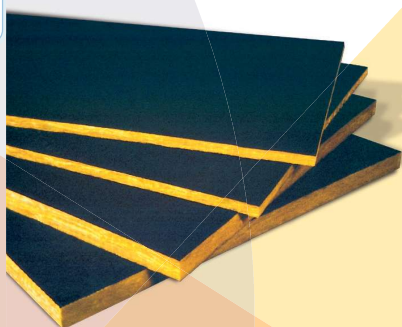
CONVERSION

Density : 1 lb/ft³ = 16 kg/m³
Thickness : 1 in = 25.4 mm
K-value : Btu.in/ft².hr.°F = 0.14286 w/m.°C
R-value : 1 ft².hr.°F/Btu = 0.175 m².°C/w

APPLICATION AREAS

- Air-conditioning
- Heating ductwork
- Containers
- Tanks

Product Code:
DLB



AFICO Duct Liner Board

Acoustical Performance		
Density Kg/m ³	Thickness in mm	NRC
	½ 15	0.50
48	1 25	0.85
	1 ½ 38	0.95
	2 50	1.05

Std Density : 48 kg/m³ (3.0 lb/ft³)
Std Size : 1.2 m x 1.0 m
Facing : Black Glass Tissue (BGT)
K-value : 0.031 w/m.°C at 10°C
 (0.21 Btu.in/ft².hr.°F at 50°F)

APPLICATION AREAS

- HVAC work
- Perforated Suspended
- Ceilings Studios
- Auditorium Rooms
- Generators Rooms
- Conference Rooms

Product Code:
CWI



AFICO Residential Cavity Wall Insulation

Mean Temperatures		W/m.°C	Btu.in/ft².hr.°F
10°C	50°F	0.034	0.24
24°C	75°F	0.035	0.24
50°C	122°F	0.042	0.29
75°C	167°F	0.047	0.33
100°C	212°F	0.052	0.36

Std. Normal Density : 26-27 kg/m³ – 1.6 – 1.7 lb/ft³
Nominal Thermal Conductivity : (BS 874) (ASTM C 518)
"K" or "λ" – Value.

- APPLICATION AREAS**
- Poultry Farms
 - Prefabricated Houses
 - New Residential Villa
 - Precast Structures
 - Partial or Fully Cavity Wall

Product Code:
PI



AFICO Heavy Density Pipe Insulation

Piping System Types	Fluid Temperature Range °C	Runouts up to 50	25 & under	32 to 50	64 to 100	125 to 150	200 & over
Heating Systems Steam and Hot Water: High Pressure/	Minimum Insulation (mm) for pipe sizes						
Temperature Medium Pressure/	152-151	40	64	64	75	89	89
Temperature Low Pressure/	122-151	40	50	64	64	75	75
Temperature	94-121	25	40	40	50	50	50
Low Temperature Steam Condensate	49-93	13	25	25	40	40	40
For Feed Water Cooling Systems	Any	25	25	40	50	50	50
Chilled Water Refrigerant, or Brine	4.5-13 Below 4.5	13 25	13 25	25 40	25 40	25 40	25 40

Facing : Foil Reinforced Kraft (FRK)
: All Service Jacket (ASJ)
Density : 64-128 kg/m³ (4-8 lb/ft³)
Temperature
Tolerance : -18°C to +450°C 0 to +850°F
Std length : 1 m

Normal Pipe sizes from ½" to 26"

- APPLICATION AREAS**
- Industrial Pipes (Hot)
 - Chiller Pipes (cold)
 - Commercial/Domestic Projects
 - Steel/pipes & plastic piping and copper pipes

Product Code:
ACP



AFICO Acoustic Ceiling Panels

Thermal & Acoustic Performances		
Thickness mm	R-Value m².°C/w	STC
15	0.45	50
20	0.61	52
25	0.76	54
38	1.15	56
50	1.52	64

Std. Density : 56 kg/m³ (3.5 lb/ft³)
Facing : PVC film – various Design (Random Fissured, Shasta, Woven Mat, Vinta)
Standard Sizes
600 x 600 mm 610 x 1220 mm
610 x 610 mm 600 x 1200 mm

- APPLICATION AREAS**
- Open offices
 - Board Rooms
 - Shopping Centers
 - Schools
 - Stores
 - Show Rooms

Product Code:
PW



AFICO Pipe Wrap Insulation

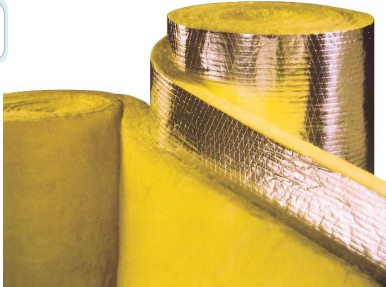
"K" or "λ" – Value	Mean Temperature °C
Btu.in/ft².hr.°F	
0.22	24
0.29	93
0.55	260

Density : 48 and 64 kg/m³

- APPLICATION AREAS**
- Pipe Flanges
 - Group of Pipes
 - Round Ducts
 - Valves
 - Tanks
 - Large Diameter Pipes

Standard Sizes		
Thickness mm	Width m	Length m
25	1	8
38	1 ½	6
50	2	4
64	2 ½	2
75	3	2

Product Code:
BKT



AFICO Blanket Insulation

Thickness		Thermal Resistance(R)	
mm	in	m ² .°C/W	hr .ft ² .°F/Btu
25	1	0.63	4
38	1 ½	0.95	5
50	2	1.25	7
64	2 ½	1.60	9
75	3	1.88	11
89	3 ½	2.23	13
100	4	2.50	14
150	6	3.75	21

Density : From 12 up to 56 kg/m³
K-Value : From 0.04 – 0.033 w/m.°C
Facing : Available unfaced or with (FRK facing) or Aluminum Foil Glass
R-Values (for K-Values=0.04)

APPLICATION AREAS

- Prefabricated Houses
- Cavity Walls
- Partitions
- Poultry Farms
- Backloading of Ceiling
- Sandwich Panels

Product Code:
TIW



AFICO Thermal Insulating Wool Insulation

Mean Temperature		“K” or “λ” – Value W/M.°C	
		Type I	Type II
24°C	75°C	0.039	0.033
93°C	200°F	0.058	0.043
149°C	300°F	0.079	0.055

Available unfaced in two types

TIW Type I : 16-24 kg/m³ density
TIW Type III : 38 kg/m³ density
Temperature Tolerance : up to +540°C (+1000°F)

APPLICATION AREAS

- Water Heaters
- Chimney Stacks
- Petrochemical Storage Tanks
- Boilers
- Ovens

Product Code:
BD



AFICO Board Insulation

PRODUCT TYPE BD	Thickness (T)		THERMAL CONDUCTIVITY (K-VALUE)		THERMAL RESISTANCE (R-VALUE)	
	mm	in	W/m.°C	Btu.in/ft ² .hr.°F	m ² .°C/W	hr.ft ² .°F/Btu.
480 (48 kg/m ³)	25	1	0.033	0.023	0.758	4.35(4)
	38	1 ½	0.033	0.023	1.152	6.52(7)
	50	2	0.033	0.023	1.515	8.70(9)
640 (64 kg/m ³)	25	1	0.032	0.022	0.781	4.55(5)
	38	1 ½	0.032	0.022	1.188	6.82(7)
	50	2	0.032	0.022	1.563	9.09(9)
960 (96 kg/m ³)	25	1	0.032	0.022	0.781	4.55(5)
	38	1 ½	0.032	0.022	1.188	6.82(7)
	50	2	0.032	0.022	1.563	9.09(9)

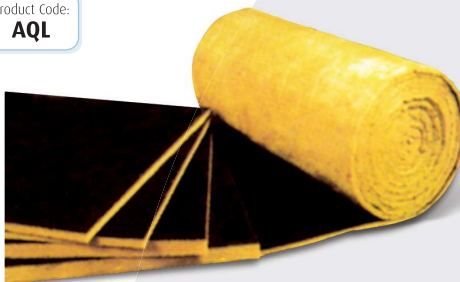
*24°C/75°F mean temperature

Density : From 24 kg/m³ up to 112 kg/m³
 Available unfaced as standard and faced upon request
R-Values of Standard Products

APPLICATION AREAS

- Precast Structures
- Internal partitions
- Roof (112 kg/m³)
- Residential Cavity Walls (26 kg/m³)
- Poultry Farms
- Prefab Houses

Product Code:
AQL



AFICO Quiet Liner

Acoustic Performance		
Density Kg/m ³	Thickness mm	NRC
	25	0.60
16	50	0.85
	25	0.75
24	50	0.95
	15	0.40
48	25	0.80
	50	1.00

Density Kg/m ³	K-value at 24°C w/m.°C
16	0.039
24	0.035
48	0.031

APPLICATION AREAS

- HVAC work
- Sound Absorption
- Treatment of Walls
- Ceiling Generator Rooms
- Studios
- Theatres
- Auditoriums

Product Code:
MBI



AFICO Pre-Engineered Metal Building Insulation

• R-Values

Thickness		K-Value		R-Value	
mm	in	m ² .°C/W	hr.ft ² .°F/Btu	mm	m
25	1	0.63	4	900-1100	10-36
38	1 ½	0.95	5	in	ft
50	2	1.25	7	36-44	30-120
64	2 ½	1.60	9		(depending on thickness)
75	3	1.88	11		
89	3 ½	2.23	13		
100	4	2.50	14		
150	6	3.75	21		

Std. Normal Density : 10-12 kg/m³

"K" or "λ" = 0.040 W/m.°C or 0.28 Btu.in/ft².hr.°F at 24°C or 75°F mean temperature.

Facing : Foil Reinforced Kraft (FRK)

: White Metalized Scrim Kraft (WMSK)

✓ APPLICATION AREAS

- Metal Building
- Hangers
- Poultry Farms

Product Code:
RI/RD



AFICO Roof Deck Insulation

PRODUCT TYPE BD	Thickness (T)		THERMAL CONDUCTIVITY (K-VALUE)		THERMAL RESISTANCE (R-VALUE)	
	mm	in	W/m.°C	Btu.in/ft ² .hr.°F	m ² .°C/W	hr.ft ² .°F/Btu.
480 (48 kg/m ³)	25	1	0.031	0.022	0.758	4.35(4)
	38	1 ½	0.031	0.022	1.152	6.52(7)
	50	2	0.031	0.022	1.515	8.70(9)
640 (64 kg/m ³)	25	1	0.032	0.022	0.781	4.55(5)
	38	1 ½	0.032	0.022	1.188	6.82(7)
	50	2	0.032	0.022	1.563	9.09(9)
960 (96 kg/m ³)	25	1	0.032	0.022	0.781	4.55(5)
	38	1 ½	0.032	0.022	1.188	6.82(7)
	50	2	0.032	0.022	1.563	9.09(9)

Density : 112 kg/m³ – 7.0 lb/ft³

Temperature

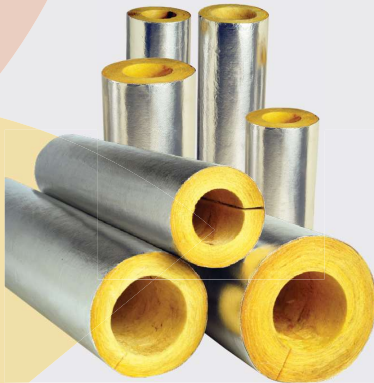
Tolerance : -18°C to +450°C 0 to +850°F

Std length : 1m

✓ APPLICATION AREAS

- Roof Decks
- Poultry Farms
- Prefabricated Houses

Product Code:
AWF



AFICO Woven Facing

Piping System Types	Fluid Temperature Range °C	Runouts up to 50	25 & under	32 to 50	64 to 100	125 to 150	200 & over
Heating Systems Steam and Hot Water: High Pressure/	Minimum Insulation (mm) for pipe sizes						
Temperature Medium Pressure/	152-238	40	64	64	75	89	89
Temperature Low Pressure/	122-151	40	50	64	64	75	75
Temperature	94-121	25	40	40	50	50	50
Low Temperature Steam Condensate	49-93	13	25	25	40	40	40
For Feed Water Cooling Systems	Any	25	25	40	50	50	50
Chilled Water Refrigerant, or Brine	4.5-13 Below 4.5	13 25	13 25	25 40	25 40	25 40	25 40

Facing : Foil Reinforced Kraft (FRK)

: All Service Jacket (ASJ)

Density : 64-128 kg/m³ (4-8 lb/ft³)

Temperature

Tolerance : -18°C to +450°C 0 to +850°F

Std length : 1 m

Normal Pipe sizes from ½" to 26"

✓ APPLICATION AREAS

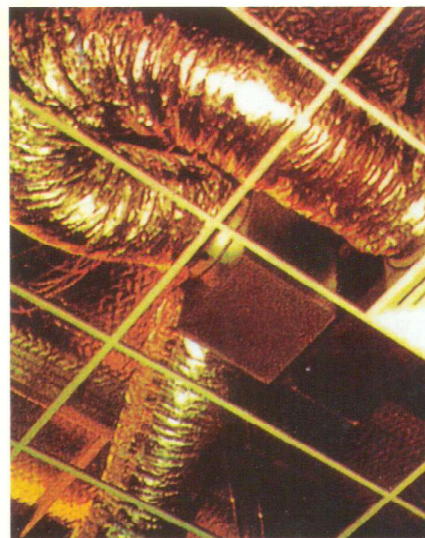
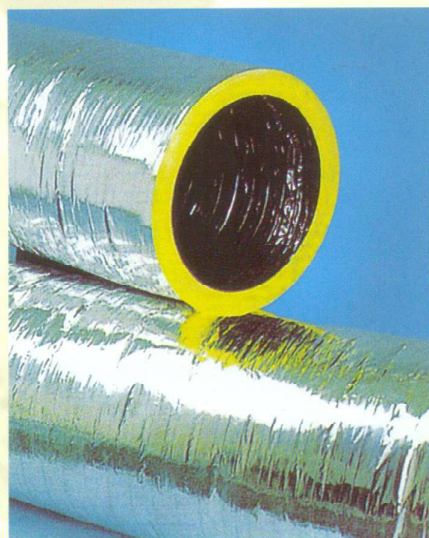
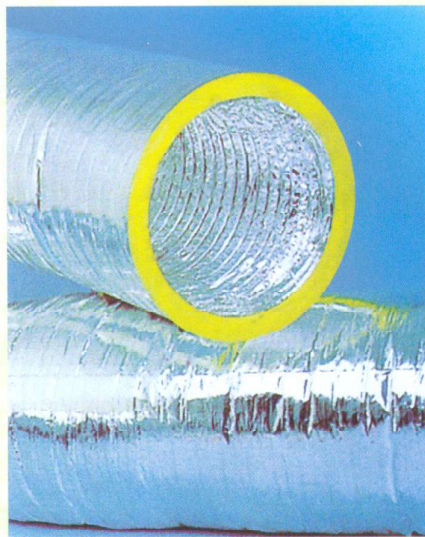
- Industrial Pipes (Hot)
- Chiller Pipes (cold)
- Commercial/Domestic Projects

*Nominal Manufacturing Specifications. Check for availability of other dimensions and densities.

*The facings are also available with UL fire resistant rating.

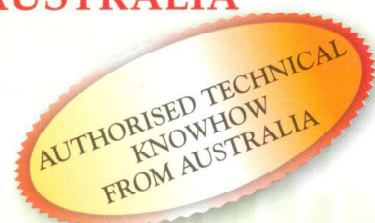
CRAYFLEX®

The Leader in Flexible Air Ducting



Manufactured Under License & Technical Collaboration of
M/s BJC Enterprises Pty Ltd
(Formerly C&C Manufacturing Pty Ltd.)
Owners of SUPAFLEX Trademark in AUSTRALIA

20 fisher street, (P.O. Box: 122),
Belmont western Australia 6104
www.bjcenterprises.com.au



PRODUCT DESCRIPTION

CRAYFLEX® is a very strong fully flexible, compressible light weight duct which is widely used in Air Conditioning and Ventilation Systems for Commercial, Industrial and Residential applications.

CRAYFLEX® is extremely durable and will maintain dimensional stability when fully extended. Highly efficient when correctly installed, **CRAYFLEX®** provides a maintenance free service life under normal operating conditions.

Attention is drawn to the requirement that flexible duct must always be fully extended and bends made with adequate radius to prevent corrugation of the interior with consequent excessive resistance to airflow.



APPLICATIONS AND BENEFITS

- Ideal for all Air Conditioning / Ventilating Systems including Hospitals, Hotels, Commercial and office Buildings and many other Industrial and Residential applications.
- Available bare or pre-insulated with fiberglass insulation.
- Offers a high degree of flexibility, which allows it to be easily connected to any desired position.
- A quick and economical means of correcting misalignment between system components.
- Allows ducting around obstacles where fabricated and fitted ducts would be difficult and costly to install.

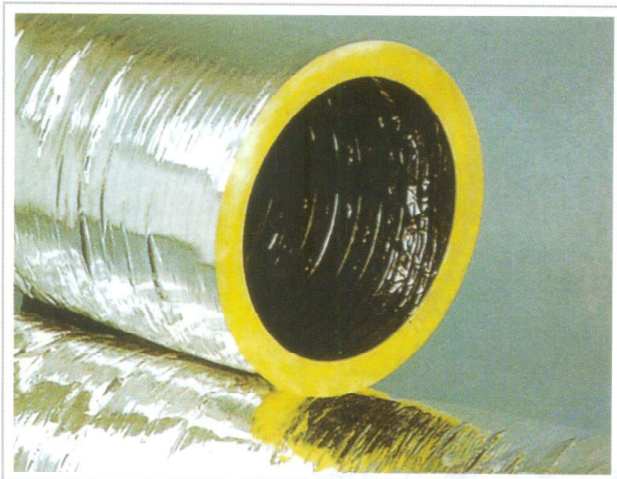
FEATURES AND CHARACTERISTICS

- Tear and puncture resistant construction.
- **CRAYFLEX®** offers a smooth inner core when correctly installed which provides low friction loss.
- Highly resistant to corrosion and micro organisms.
- Able to withstand medium air pressure.
- Low operating cost.
- Compressed ducts reduces freight and storage costs.
- No air leakage.
- Fire rated to confirm British and Australian Fire Standards.
- Spring steel wire helix assures dimensional stability, resists mechanical abuse and provides more efficient air distribution.

CRAYFLEX® INSULATED AND NON-INSULATED PRODUCTS & PERFORMANCE DATA

CRAYFLEX®

M1B



CRAYFLEX M1B is made of tough polyester, permanently bonded to a spring steel wire helix and coloured black. Thermal efficiency is provided by wrapping the exterior with a blanket of fiberglass insulation. The strong outer insulation jacket/ vapour barrier is made of metallized polyester film laminate.

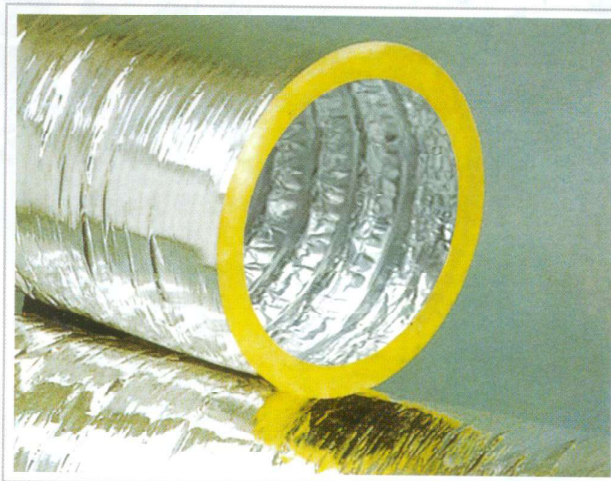
Standard length	25 Ft
Standard diameters	4" to 18"
Velocity	5,000 fpm maximum
Fire Rating	Complies with AS 4254 - 1995 and amendments.
Puncture test	Complies with UL 181 Part 14
Temperature Range	32 - 200°F (0°C to 93°C)
Pressure	max 8" w.g positive and 3/4" negative
Insulation Thickness available	25mm (1"), 38mm (1.5"), 50mm (2")
Insulation Density available	16 Kg/m ³ / 24Kg/m ³ / 32 Kg/m ³
Insulation R Value	4.2 (oF-Ft ² -hr/BTU) / 6.0/8.0
Packing	1 piece (25 ft) per carton

CRAYFLEX®

M1A

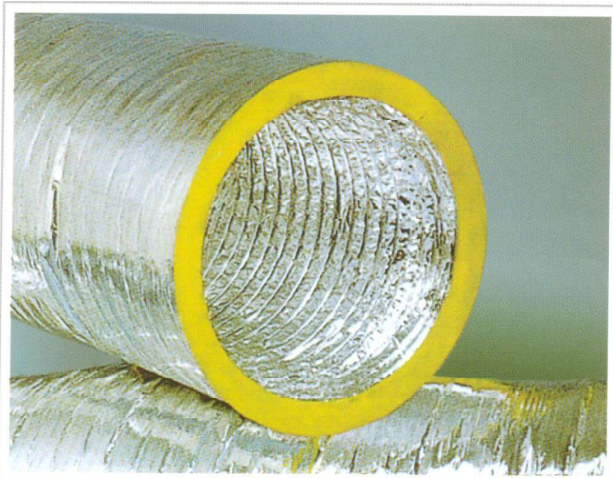
CRAYFLEX M1A is made of double laminate of a tough clear Polyester and a metallized polyester film and aluminium coloured core. Thermal efficiency is provided by wrapping the exterior with a blanket of fiberglass insulation. The strong outer insulation jacket/ vapour barrier is made of metallized polyester film laminate.

Standard length	25 Ft
Standard diameters	4" to 18"
Velocity	5,000 fpm maximum
Fire Rating	Complies with AS 4254 - 1995 and amendments.
Puncture test	Complies with UL 181 Part 14
Temperature Range	32 - 200°F (0°C to 93°C)
Pressure	max 8" w.g positive and 3/4" negative
Insulation Thickness available	25mm (1"), 38mm (1.5"), 50mm (2")
Insulation Density available	16 Kg/m ³ / 24Kg/m ³ / 32 Kg/m ³
Insulation R Value	4.2 (oF-Ft ² -hr/BTU) / 6.0/8.0
Packing	1 piece (25 ft) per carton



CRAYFLEX®

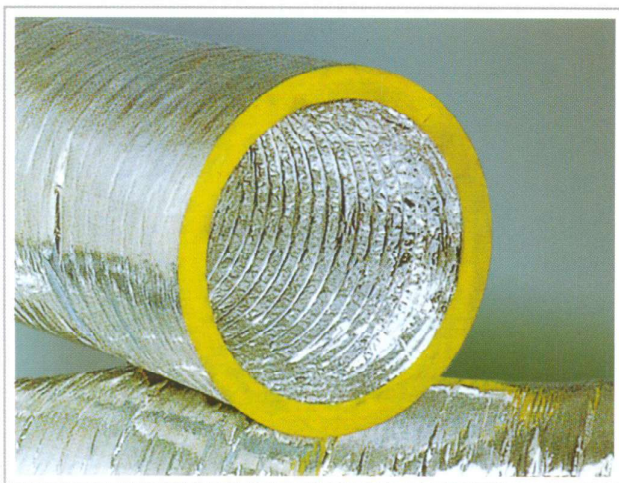
13APM



CRAYFLEX 13APM is made of triple lamination of aluminium foil, polyester and metallized polyester film permanently bonded to a coated spring steel wire helix. Thermal efficiency is provided by wrapping the exterior with a blanket of fiberglass insulation. The strong outer insulation jacket / vapour barrier is made of metallized polyester film laminate.

Standard length	25 Ft
Standard diameters	4" to 18"
Velocity	5,000 fpm maximum
Fire Rating	Certified to BS 476 parts 5, 6 and 7
Puncture test	Complies with UL 181 Part 14
Temperature Range	32 - 200°F (0°C to 93°C)
Pressure	max 10" w.g positive and 3/4" negative
Insulation Thickness available	25mm (1"), 38 mm (1.5"), 50mm (2")
Insulation Density available	16 Kg/m ³ / 24kg/m ³ / 32 Kg/m ³
Insulation R Value	4.2 (oF-Ft ² -hr/BTU) / 6.0/8.0
Packing	1 piece (25 ft) per carton

Designed to meet BS 5588 part 9

CRAYFLEX®**16APM**

CRAYFLEX 16APM is made of six laminate of double aluminium foil, double polyester and double metallized polyester film permanently bonded to a coated spring steel wire helix. Thermal efficiency is provided by wrapping the exterior with a blanket of fiberglass insulation. The strong outer insulation jacket / vapour barrier is made of metallized polyester film laminate.

Standard length	25 Ft
Standard diameters	4" to 18"
Velocity	5,000 fpm maximum
Fire Rating	Certified to BS 476 parts 5,6 and 7
Puncture test	Complies with UL 181 Part 14
Temperature Range	32 - 200°F (0°C to 93°C)
Pressure	max 10" w.g positive and 3/4" negative
Insulation Thickness available	25mm(1"), 38 mm(1.5"), 50mm(2")
Insulation Density available	16 Kg/m ³ / 24kg/m ³ / 32 Kg/m ³
Insulation R Value	4.2 (oF-Ft ² -hr/BTU)/6.0/8.0
Packing	1 piece (25 ft) per carton

Designed to meet BS 5588 part 9

CRAYFLEX®**13APM-D**

CRAYFLEX 13APM-D is an uninsulated duct made of a triple lamination of aluminium foil, polyester and metallized polyester films permanently bonded to a coated spring steel wire helix.

Standard length	25 Ft
Standard diameters	4" to 20"
Velocity	5,000 fpm maximum
Fire Rating	Certified to BS 476 parts 5,6 and 7
Recommended Operating Pressure	6" w.g. Pos, all Dia. 1/2" w.g. neg all dia.
Packing	1 piece (25 ft) per carton

Designed to meet BS 5588 part 9



CRAYFLEX 16APM-D is an uninsulated duct made of a six laminate of double aluminium foil, double polyester and double metallized polyester films permanently bonded to a coated spring steel wire helix.

Standard length	25 Ft
Standard diameters	4" to 20"
Velocity	5,000 fpm maximum
Fire Rating	Certified to BS 476 parts 5,6 and 7
Recommended Operating Pressure	6" w.g. Pos, all Dia. 1/2" w.g. neg all dia
Packing	1 piece (25 ft) per carton

Designed to meet BS 5588 part 9



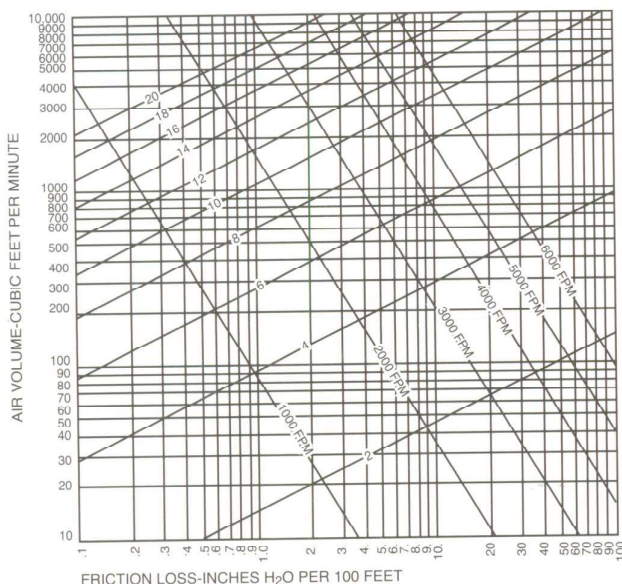
CRAYFLEX M1A-D is an uninsulated duct made of a triple lamination of aluminium foil, polyester and metallized polyester films permanently bonded to a coated spring steel wire helix.

Standard length	25 Ft
Standard diameters	4" to 20"
Velocity	5,000 fpm maximum
Fire Rating	Complies with AS 4254 - 1995 and amendments.
Recommended Operating Pressure	6" w.g. Pos, all Dia. 1/2" w.g. neg all dia.
Packing	1 piece (25 ft) per carton

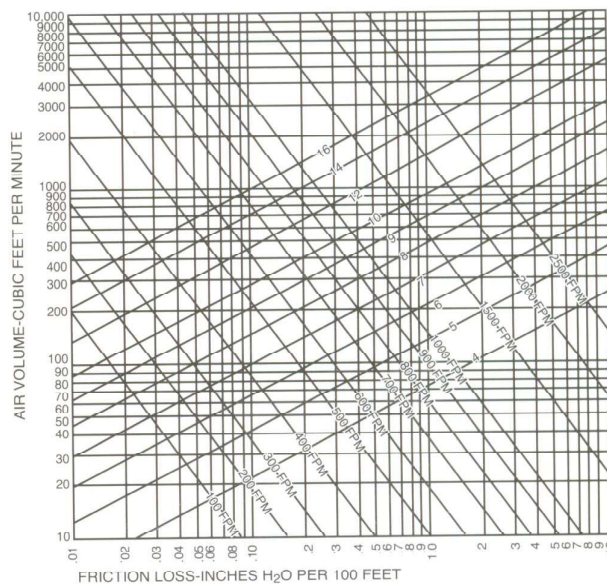
For Specific application the Combination of various densities and thickness of fiberglass Insulation can be used for Manufacturing flexible duct.

FLEXIBLE DUCT - FRICTION LOSS DIAGRAM

**FLEXIBLE DUCT - STRAIGHT RUN
FRICTION LOSS PER 100 FT**



**FLEXIBLE DUCT - STRAIGHT RUN
FRICTION LOSS PER 100 FT**



DISTRIBUTER



FOCUS AIR CONDITIONING INDUSTRIES LLC

An ISO 9001 : 2008 Certified Company

P.O.Box 37945, Dubai, U.A.E. , Website: www.focusaircon.net

Under License from **CRAYFLEX®** Trade Mark Owners

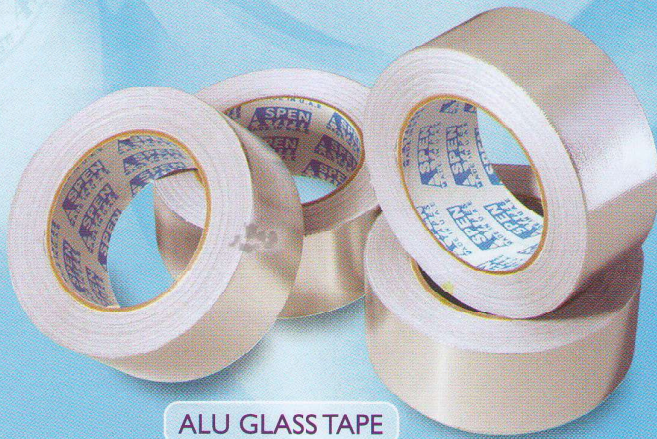
ASPEN TAPES



PLAIN TAPE



FSK TAPE



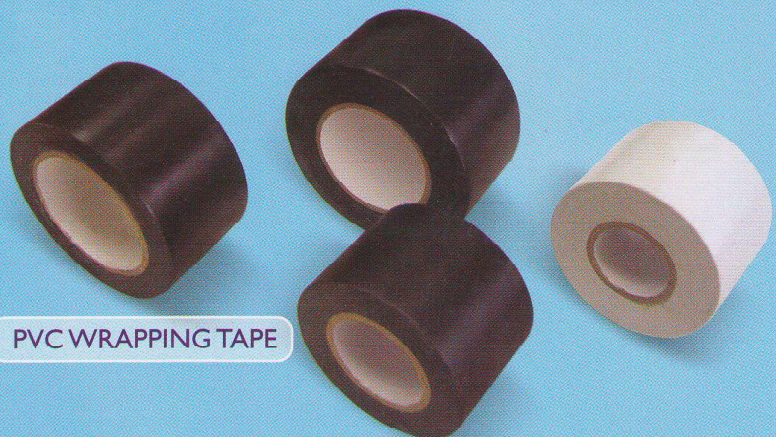
ALU GLASS TAPE



EVA FOAM TAPE



GREY TAPE

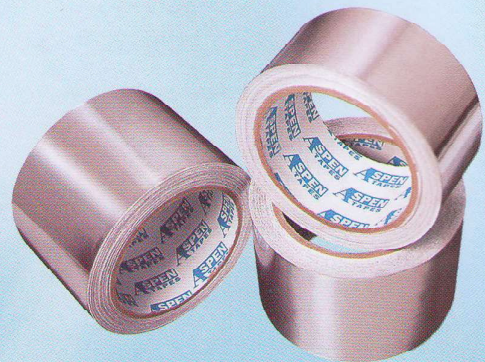


PVC WRAPPING TAPE



Aluminum Foil Tape

Technical Data (Aspen-30 Aluminum Foil Tape)



ASPEN - 30 APS

Plain Aluminum Foil Tape application is for sealing and seaming plain foil/FSK faced fiberglass duct/pipe insulation surface. Protection against moisture combined with superior sealing and strength makes Aspen range of Aluminum Foil Tapes an ideal choice for contractors and engineers. Acrylic adhesive coating on superior polycoated liner gives it strong adherence over a wide temperature range.

Substrate	Soft Aluminum	Specification	PSTC / ASTM
Adhesive	Proprietary Formulated Acrylic	Temp Resistance	30°F to 250°F
Foil Thickness	25/30 Microns	Rolling Tack	4" (7/16" ball)
Colour	Metalic Silver	Elongation	4%
Peel Adhesion	83oz / inch width	Tensile Strength	17lbs / inch width
Global warming Potential	0(Zero)	Ozone Depletion	5
Nominal widths available	2" (48 mm), 3" (72 mm) & 4" (96 mm)	Lengths available	25, 30, 40, 50 yard

ASPEN – 30 APS

TEST FOR	TESTING AUTHORITY	TEST METHOD
Tensile Strength	Al-Futtaim EXOVA	ASTM D 882
Fire Rating	Exova Warringtonfire	BS 476: Part 6, Part 7; Class "O"

Aluminum FSK (Foil/Scrim/Kraft) Tape

Technical Data (Aspen-FSK Tape)



ASPEN - 30 AFS

A High Quality tape, having an Aluminum-reinforced substrate gives it exceptional tensile strength, and higher rolling tack. Due to its superior engineering construction, contractors and engineers prefer it for very high quality seaming and sealing of fiberglass duct insulation and pipe insulation. Acrylic adhesive selection gives a strong bond over a wide temperature range in addition to a good vapour barrier and an aesthetic appeal.

Substrate	Aluminum Foil/Scrim/Kraft	Specification	PSTC / ASTM
Adhesive	Proprietary Formulated Acrylic	Temp. Resistance	30°F to 250°F
Foil Thickness	195-200 Microns Excluding Liner	Rolling Tack	7-7/8" (7/16" ball)
Colour	Metalic Silver	Adhesion to liner	1.8oz / inch width
Peel Adhesion	83oz / inch width	Tensile Strength	22lbs / inch width
Global warming Potential	0(Zero)	Ozone Depletion	5
Nominal widths available	2" (48 mm), 3" (72 mm) & 4" (96 mm)	Lengths available	25, 30, 40, 50 yard

ASPEN – 30AFS

TEST FOR	TESTING AUTHORITY	TEST METHOD
Tensile Strength	Al-Futtaim EXOVA	ASTM D 638 : 03
Water Vapour Permeability	Al-Futtaim EXOVA	ASTM E 96
Fire Rating	Exova Warringtonfire	BS 476: Part 6, Part 7; Class "O"



Aluminum Foil Tape

High Shear Quality

Technical Data (Aspen-30 Aluminum Foil Tape)

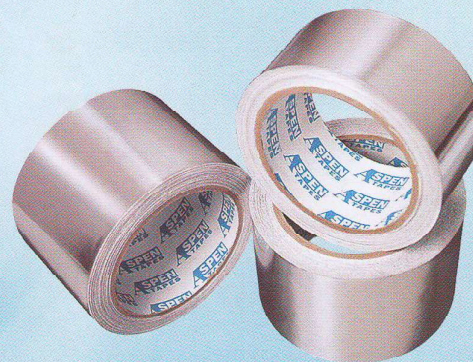
ASPEN - 30 APHS

Plain Aluminum Foil Tape application is for sealing and seaming plain foil/FSK faced fiberglass duct/pipe insulation surface. Protection against moisture combined with superior sealing and strength makes Aspen range of Aluminum Foil Tapes an ideal choice for contractors and engineers. Acrylic adhesive coating on superior polycoated liner gives it strong adherence over a wide temperature range and particularly perform well in hot climatic conditions.

Substrate	Soft Aluminum	Specification	PSTC / ASTM
Adhesive	Solvent Acrylic Adhesive	Temp Resistance	30°C to 120°C
Foil Thickness	25/30 Microns	Rolling Tack	4" (7/16" ball)
Colour	Metalic Silver	Elongation	3%
Peel Adhesion	20 N/25mm	Tensile Strength	45 N/25mm
Global warming Potential	0(Zero)	Ozone Depletion	5
Nominal widths available	2" (48 mm), 3" (72 mm) & 4" (96 mm)	Lengths available	25, 30, 40, 50 yard

ASPEN - 30 APS

TEST FOR	TESTING AUTHORITY	TEST METHOD
Tensile Strength	AI-Futtaim EXOVA	ASTM D 882
Fire Rating	Exova Warringtonfire	BS 476: Part 6, Part 7; Class "O"



Aluminum FSK (Foil/Scrim/Kraft) Tape

High Shear Quality

Technical Data (Aspen-FSK Tape)

ASPEN - 30 AFHS

A High Quality tape, having an Aluminum-reinforced substrate gives it exceptional tensile strength, and higher rolling tack. Due to its superior engineering construction, contractors and engineers prefer it for very high quality seaming and sealing of fiberglass duct insulation and pipe insulation. Acrylic adhesive selection gives a strong bond over a wide temperature range in addition to a good vapour barrier and an aesthetic appeal and particularly perform well in hot climatic conditions.

Substrate	Aluminum Foil/Scrim/Kraft	Specification	PSTC / ASTM
Adhesive	Solvent Acrylic Adhesive	Temp. Resistance	30°C to 80°C
Foil Thickness	195-200 Microns Excluding Liner	Rolling Tack	7-7/8" (7/16" ball)
Colour	Metalic Silver	Adhesion to liner	1.8oz / inch width
Peel Adhesion	20 N/25mm	Tensile Strength	120 N/25mm
Global warming Potential	0(Zero)	Ozone Depletion	5
Nominal widths available	2" (48 mm), 3" (72 mm) & 4" (96 mm)	Lengths available	25, 30, 40, 50 yard

ASPEN - 30AFS

TEST FOR	TESTING AUTHORITY	TEST METHOD
Tensile Strength	AI-Futtaim EXOVA	ASTM D 638 : 03
Water Vapour Permeability	AI-Futtaim EXOVA	ASTM E 96
Fire Rating	Exova Warringtonfire	BS 476: Part 6, Part 7; Class "O"





Alu Glass Cloth Tape Flame Retardant/ Non flame Retardant

MODEL NO: 30 AGF / 30 AGN

PRODUCT DESCRIPTION

7 mic Aluminum – Glass Cloth backing, combined with a high performance flame - Retardant adhesive, protected by an easy-release silicone release paper.

FEATURES

- Aluminum – Glass Cloth backing provides excellent reflection of both heat and light
- High quality adhesive with super strong adhesive and holding power offers reliable and durable Aluminum – Glass Cloth Facing joints and seams sealing in industrial pipe thermal insulation application
- It is Excellent Vapor barrier due to Low moisture vapor transmission rate
- Service Temperature range from -20°C to $+120^{\circ}\text{C}$ (-4°F to $+248^{\circ}\text{F}$)

TYPICAL PHYSICAL PROPERTIES

PROPERTIES	METRIC	ENGLISH	TEST METHOD
Alum. Foil Thickness	7 Micron	0.28 Mil	PSTC-33
Alum.-Glass Cloth Backing	120 Micron	5.2 Mil	PSTC-33
Total Thickness (Backing+Adhesive)	170 Micron	7.4 Mil	PSTC-33
Peel Adhesive to Stainless Steel	25 N/25 mm	90 Oz. / In.	PSTC-1
Peel Adhesive of Backing	25 N/25 mm	90 Oz. / In.	PSTC-1
Rolling tack (11 mm ball)	20 cm	8.0 In	PSTC-6
Holding Power	5,000 + Min	5,000 + Min.	PSTC-7
Service temperature Ranger	-20°C to $+120^{\circ}\text{C}$	-4°F to $+248^{\circ}\text{F}$
Fire Rating	Class	Class "0"	BS476Pt.6 & Pt.7

ASPEN – ALUGLASS

TEST FOR	TESTING AUTHORITY	TEST METHOD
Tensile Strength	AI-Futtaim Bodycote	ASTM D 638
Fungal Resistance	AI-Futtaim Exova	ASTM G 21 – 96 (Reapproved 2002)

TYPICAL APPLICATIONS

HVAC industry for joining and sealing Alum.-Glass Facing laminated fiberglass blanket / duct board joints and seams; joining and sealing industrial pipe insulation' seams and connections. May also be used for other industrial uses requires characteristics and benefits.

PRODUCT FORM & SIZE AVAILABLE

Nominal Width(mm)	48	72	96
Length (Yds)	25/30/40	25/30/40	25/30/40
Rolls / Carton	24	16	12

STORAGE & SHELF LIFE: ONE YEAR WHEN STORED AT 21°C (70°F) /50% relative humidity out of direct sunlight.

SURFACE PREPARATION: It is essential, as with all pressure – sensitive tapes, that the surface to which the tape is applied must be clean, dry, free of grease, oil or other contaminates.

PRODUCT USE: It is essential that the user evaluate the FOCUS product to whether it is fit for a particular purpose and user's method of application. Good result will be obtained when

applied to a clean, dry surface with a suitable pressure on FOCUS product between $+10$ to $+40^{\circ}\text{C}$ ($+50$ to $+105^{\circ}\text{F}$)

Always ensure that the surface of application of type is clean and free from dust and oil.

All statements, technical information, recommendations are based on test conducted by us. These should not be taken to frame specification. Before using, user shall determine the suitability of the product for his intended use FOCUS cannot be responsible for the misuse of it's product, nor for responsible for the misuse of it's product, nor for the consequence of the usage for non recommended applications.

FOCUS offers limited guarantees for the replacement of product found defective against manufacturing defects only if any and do not agree for covering consequential claims.





EVA FOAM TAPE

SINGLE SIDE FOAM TAPE

Soft EVA foam of 3 mm thickness coated with aggressive Acrylic based pressure sensitive adhesive, which has good Shear resistance, High peel Adhesion and suitable for duct insulation. It is backed with Silicone paper. The Adhesive has very good adhesive to Aluminum, glass surface.



APPLICATIONS

The Tape has excellent conformability and is suitable for

- Duct Insulation as in refrigeration and Air Conditioning
- As heat Insulator
- For Sealing purpose
- Sealing of Double-glazing units

SPECIFICATIONS

Thickness of foam	:	3 MM / 4MM / 5MM / 6MM
Type of Adhesive	:	Acrylic based
Temperature Resistance	:	70 deg C
Tensile strength	:	1 kg / 25 mm width
Elongation	:	10%
Adhesive	:	700 gm / 25 mm
Core ID	:	76 MM
Release Liner	:	Silicone Paper

VOC tested & certified as per test method : CHEM 4051

STANDARD SIZES AND PACKING

Width (mm)	24	48
Length	7.5	7.5
Roll / Carton	60	30

Always ensure that the surface of application of type is clean and free from dust oil. All statement, technical information, recommendation are based on tests conducted by us, These should not be taken to frame specifications.

Before using, user shall determine the suitability of the product for this intended use FOCUS cannot be responsible for the misuse of its product, nor the for the consequences of the usage for the non recommended applications.

FOCUS offers guarantees for the replacement of product found defective against manufacturing defects only and do not agree for covering consequential claims.



DUCT TAPE SILVER GREY CLOTH

PRODUCT DESCRIPTION

Cloth Duct Tape adopts PE-coated cloth as backing with rubber-resin adhesive coated. It enjoys high tensile strength, excellent moisture resistant, easy tear. It conforms well to irregular surface.

It is good choice for bundling, heavy carton packing, general maintenance, pipe wrapping, carpet fixing, air-conditioning duct's seam and joint sealing etc.

TYPICAL PHYSICAL PROPERTIES

CLOTH DUCT TAPE WITH RUBBER-RESIN ADHESIVE

Product	Mesh	Color	Thickness Range in Microns	Adhesion N/25mm	Tensile N/25mm	Elongation %	Service Temp. 0C °
CT 1503	27	Silver Grey	150~250	25	100	15	-20~+60

PRODUCT FORM & SIZE AVAILABLE

Nominal Widths: 2", 3", 4"

Nominal Length: 30 Yards

IMPORTANT NOTE

The data above are typical values only, and should not be used for specifications purpose. Tolerance: Weight and Thickness: $\pm 10\%$; Width: $\pm 3\text{mm}$; Length: Cut Roll: $\pm 0.3\text{m}$, Jumbo Roll: $\pm 0.5\%$

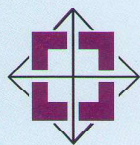
STORAGE & SHELF LIFE

12 months when stored at 21°C (70°F) / 50% relative humidity out of direct sunlight.

PRODUCT USE

It is essential that the user evaluate the ASPEN Tape to determine whether it is fit for a particular purpose and user's method of application. Good results will be obtained when applied to a clean, dry surface with a suitable pressure on ASPEN Tape between $+10 \sim +40^{\circ}\text{C}$ ($+50 \sim +105^{\circ}\text{F}$)

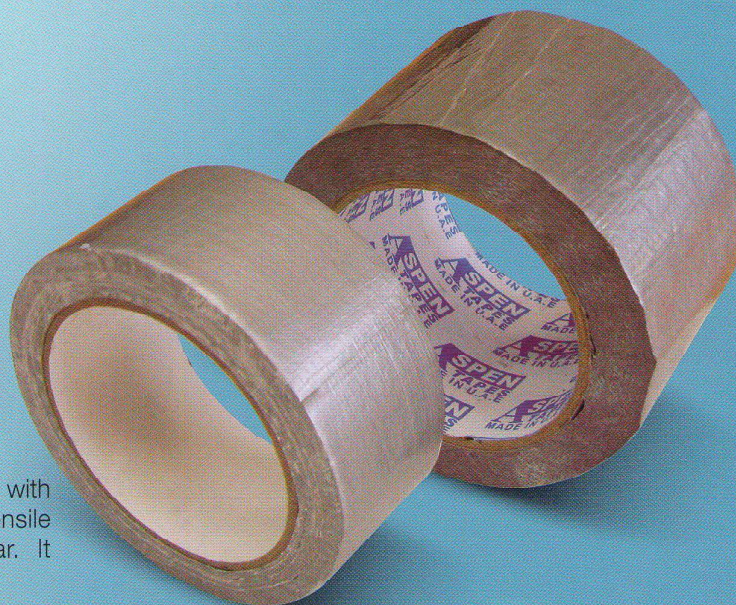
Manufactured by



FOCUS AIR CONDITIONING INDUSTRIES LLC

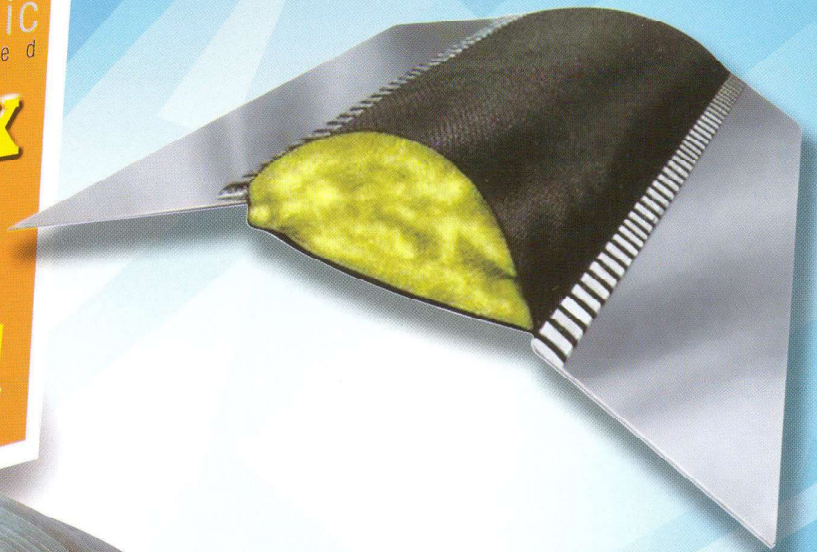
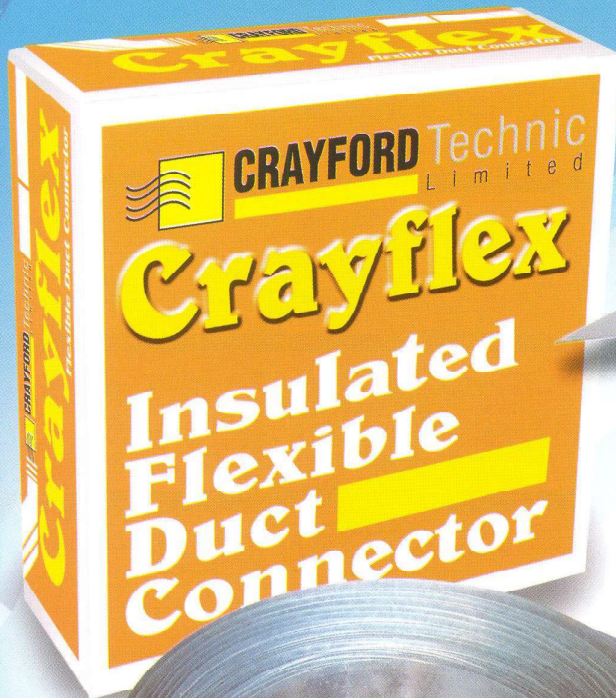
An ISO 9001 : 2008 Certified Company

P.O.Box 37945, Dubai, U.A.E. , Website: www.focusaircon.net



Crayflex®

INSULATED FLEXIBLE DUCT CONNECTOR



- Insulation - 4.2 R Value Quick and Economical
- Fabric with Double UV Protection
- Unmatched Durability and Strength
- Available in various widths
- Z27 (G90) coated steel giving added corrosion resistance

Crayflex[®]

Flexible Duct Connector



- Quick and economical
- Strong Airtight Lock Seams
- Fabric with Double UV Protection
- Unmatched Durability and Strength
- Available in various widths

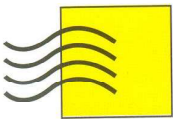


Crayflex[®]

Flexible Duct Connector
uses 24 gauge or 28 gauge
galvanized steel sheet complying

ASTM A 653(Formerly ASTM 525) & ASTM A 924
with zinc coating of Z 27 (G90) to give added
corrosion resistance.

Crayflex Fabrics are complying to UL 214 and BS 476 Part 7 (Class 1). Design to meet NFPA 701(formerly UL214)
Crayford Flexible Duct connector Standard roll length available in 100 feet and 150 feet.



CRAYFORD Technic
Limited



PRODUCT

Crayflex® is a very strong, fully flexible duct connector and is widely used in Air Conditioning Systems for Commercial, Industrial and Residential applications.

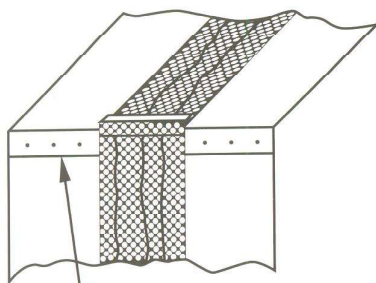
Ready carton dispensing completes the fabrication quicker, more efficiently, and more economically than conventional method.

APPLICATION

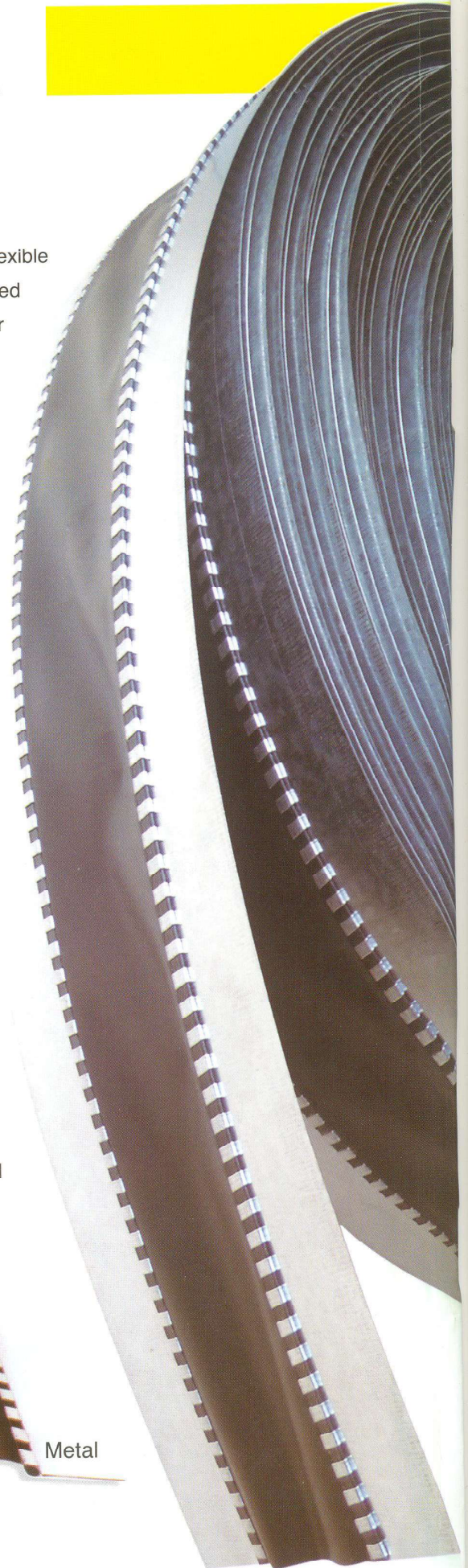
Isolation of sound and vibration from the source, double lock seam jointed duct flexible connector fabric is used which is fixed to galvanized steel sheet metal is anchored with the equipment and the other end is anchored with the ductwork.

It is recommended that larger fabric widths be used for better results in vibration isolation thereby preventing metal to metal contact. Crayflex® offers flexibility in fabric and metal width, mostly available ex-stock.

Crayflex® flexible duct connector fabric complying BS3424 & BS5438. All Crayflex® flexible duct connector are designed to meet UL 214 and are airtight and waterproof.



Fold and pin metal edge



Crayflex® Flexible Duct Connector

BASE FABRIC / COATING	CODE	METAL WIDTH	FABRIC WIDTH	METAL WIDTH	PACKING
Canvas	CF-CV-3-134	1 3/4"	3"	1 3/4"	100'/150'
	CF-CV-4-300	3"	4"	3"	100'/150'
	CF-CV-4-400	4"	4"	4"	100'/150'
	CF-CV-6-300	3"	6"	3"	100'/150'
	CF-CV-3-300	3"	3"	3"	100'/150'

Polyester / Vinyl	CF-PV-3-134	1 3/4"	3"	1 3/4"	100'/150'
	CF-PV-4-300	3"	4"	3"	100'/150'
	CF-PV-4-400	4"	4"	4"	100'/150'
	CF-PV-6-300	3"	6"	3"	100'/150'
	CF-PV-3-300	3"	3"	3"	100'/150'

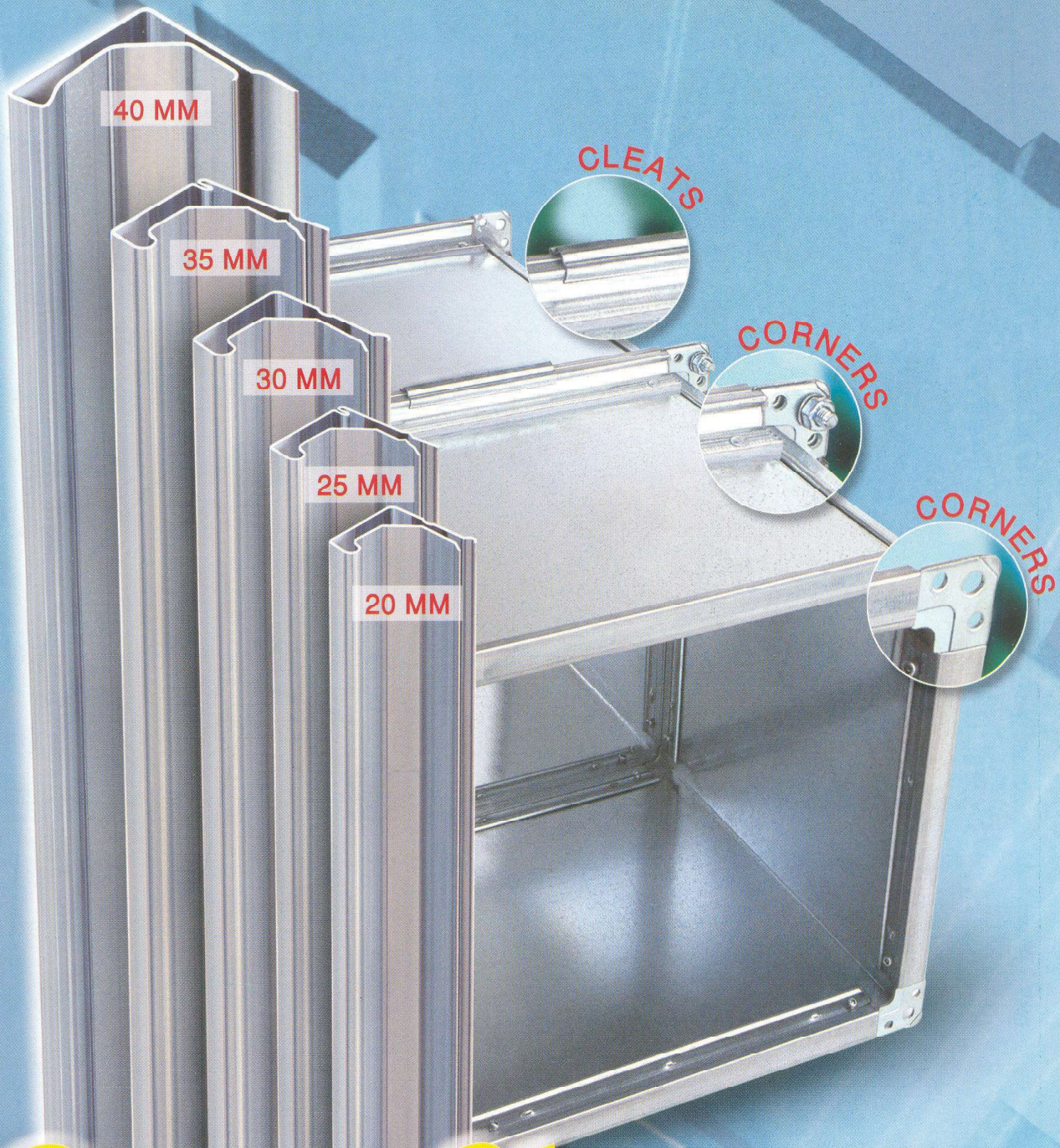
Glassfibre / Neoprene	CF-GN-3-134	1 3/4"	3"	1 3/4"	100'/150'
	CF-GN-4-300	3"	4"	3"	100'/150'
	CF-GN-4-400	4"	4"	4"	100'/150'
	CF-GN-6-300	3"	6"	3"	100'/150'
	CF-GN-3-300	3"	3"	3"	100'/150'

Glassfibre / Hypalon	CF-GH-3-134	1 3/4"	3"	1 3/4"	100'/150'
	CF-GH-4-300	3"	4"	3"	100'/150'
	CF-GH-4-400	4"	4"	4"	100'/150'
	CF-GH-6-300	3"	6"	3"	100'/150'
	CF-GH-3-300	3"	3"	3"	100'/150'

Glassfibre / Silicon	CF-GS-4-300	3"	4"	3"	100'/150'
	CF-GS-4-400	4"	4"	4"	100'/150'
	CF-GS-6-300	3"	6"	3"	100'/150'
	CF-GS-3-300	3"	3"	3"	100'/150'

Glassfibre / Neoprene	CF-NCA-4-300	3"	4"	3"	100'/150'
	CF-NCA-6-300	3"	6"	3"	100'/150'
	CF-NCA-4-400	4"	4"	4"	100'/150'

Glassfibre / Silicone	CF-SCF-4-300	3"	4"	3"	100'/150'
	CF-SCF-6-300	3"	6"	3"	100'/150'
	CF-SCF-4-400	4"	4"	4"	100'/150'



Crayflange

profile

- Manufactured by precision roll-forming operation
- Designed to comply according to International Industry Standards
- Zinc coating of G90 to Z27 (275 gms. /sq. metre) for added corrosion protection
- Automated Non Drying Sealing Compound injection in flange

Crayflange

4 BOLT **SLIDE ON FLANGE SYSTEM**

Crayford Flanges (Crayflange) 4 Bolt Slide On Flange system is available in five sizes:

Crayflange 20

Crayflange 25

Crayflange 30

Crayflange 35

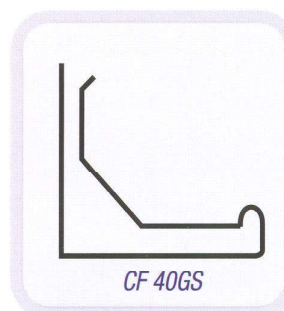
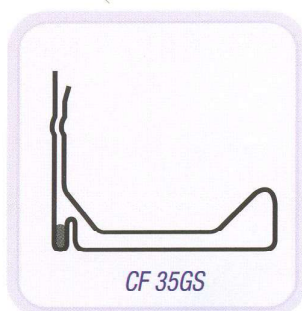
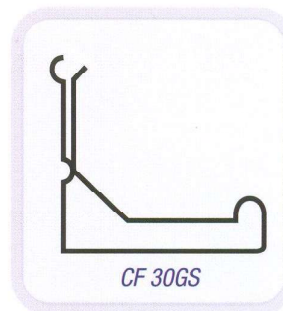
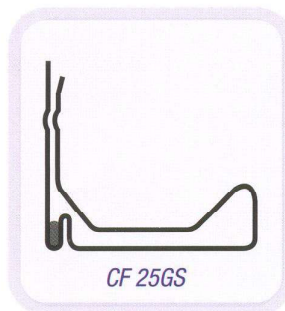
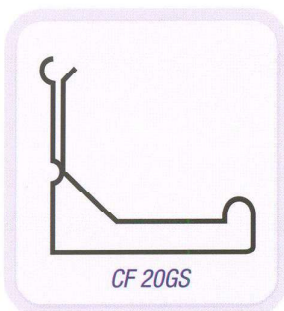
Crayflange 40

- Crayflange is manufactured by precision roll-forming operation, out of hot dipped cold reduced galvanized steel slit coils.
- Crayflange is complying to International Industry Standards
- Crayflange is available as normal flange and for special applications with integral sealant for better results on all pressure class applications.
- Crayflange uses Galvanized Steel Sheet as per ASTM A 653 CSB & ASTM A924 Corresponding to BS2989 (Z2) Corresponding Euronorm EN10142 & EN10143
- Comply to DW144
- Galvanized Steel Sheet used for Crayflange has zinc coating of G90 corresponding to Z27 (275 gms. / sq. metre) for added corrosion protection. (Formerly ASTM - 525)

System Code	Descriptions*	Material Type	Nominal Material Thickness (mm)	Weight** (Kg/m)
CF20GS	Crayflange	Galvanized Steel	0.70	0.485
CF30GS	Crayflange	Galvanized Steel	0.80	0.735
CF40GS	Crayflange	Galvanized Steel	1.00~1.20	1.500
CF25GS	Crayflange	Galvanized Steel	0.70~0.80	0.626
CF35GS	Crayflange	Galvanized Steel	0.80~0.90	0.910
CF20AS	Crayflange	Aluminum	0.70	0.175
CF30AS	Crayflange	Aluminum	0.80	0.250
CF40AS	Crayflange	Aluminum	1.20	0.530
CF25AS	Crayflange	Aluminum	0.70~0.80	0.220
CF35AS	Crayflange	Aluminum	0.90~1.00	0.321

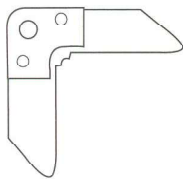
*S - All Systems of Crayflange have an Automated Non Drying Sealing Compound Injection.

**Weight - All weights are theoretical and for indicative Purpose only.

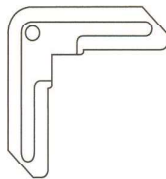


Crayflange CORNER

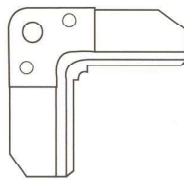
Crayford 4 Bolt Slide on Flange System corners are available in five sizes suiting the respective flange profiles. Crayford Flange Corners (Cray-Corner) are manufactured out of cold rolled mild steel and galvanized after the manufacturing



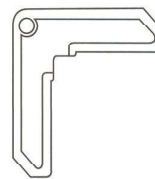
CC20G



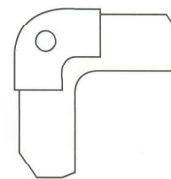
CC25G



CC30G



CC35G



CC40G

Crayflange Corners are available in 250 pcs/box, 300 pcs/box, 150 pcs/box, 200 pcs/box and 100 pcs/box for sizes 20, 25, 30, 35 and 40 respectively.

System Code	Description	Material Type	Nominal Material Thickness (mm)
CC20G	Craycorner	Galvanized Steel	2.50
CC30G	Craycorner	Galvanized Steel	2.50
CC40G	Craycorner	Galvanized Steel	3.50
CC25G	Craycorner	Galvanized Steel	1.20
CC35G	Craycorner	Galvanized Steel	1.50
CC20A	Craycorner	Aluminum	2.50
CC30A	Craycorner	Aluminum	4.00
CC40A	Craycorner	Aluminum	5.00
CC25A	Craycorner	Aluminum	1.20
CC35A	Craycorner	Aluminum	1.50

Crayflange Slide Cleats and Clamps



CS 20G



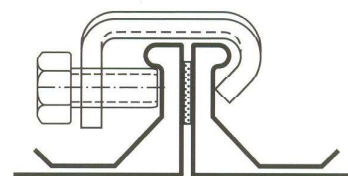
CS 25G



CS 30G



CS 35G



CS 40G

- Crayflange 4 bolt slide on flange system slide cleats are available in four sizes suiting the size 20, size 30, size 25 & size 35 flange profiles
- Crayflange Slide Cleats (Cray-slides) are manufactured out of hot dipped cold reduced galvanized steel slit coils.
- Crayclamps are available in packing of 100 pieces per box.

System Code	Description	Material Type	Nominal Material Thickness (mm)	Length (mm)
CS20G	Crayslide	Galvanized Steel	1.20	2000
CS30G	Crayslide	Galvanized Steel	1.20	2000
CS20A	Crayslide	Aluminum	1.20	2000
CS30A	Crayslide	Aluminum	1.20	2000
CS40G	Crayclamp	Galvanized Steel	4.00	NA
CS25G	Crayslide	Galvanized Steel	1.20	2000
CS35G	Crayslide	Galvanized Steel	1.20	2000
CS25A	Crayslide	Aluminum	1.20	2000
CS35A	Crayslide	Aluminum	1.20	2000

50 MM Static Pressure		Rectangular Duct Construction				
TRANSVERSE JOINT Crayflange 25mm or 35mm @ MAXIMUM SPACING INTERMEDIATE REINFORCEMENT AS PER TABLE 1 – 10						
DUCT SIZE	SHEET THICKNESS					
	16 GA.	18 GA.	20 GA.	22 GA.	24 GA.	26 GA.
200mm DN						25 @ 3000mm
225mm to 250mm						25 @ 3000mm
275mm to 300mm					25 @ 3000mm	25 @ 2400mm
325mm to 350mm					25 @ 3000mm	25 @ 2400mm
375mm to 400mm					25 @ 3000mm	25 @ 2400mm
425mm to 450mm					25 @ 3000mm	25 @ 2400mm
475mm to 500mm				25 @ 3000mm	25 @ 2400mm	25 @ 1500mm
525mm to 550mm				25 @ 3000mm	25 @ 2400mm	25 @ 1500mm
575mm to 600mm				25 @ 3000mm	25 @ 2400mm	25 @ 1500mm
625mm to 650mm				25 @ 3000mm	25 @ 2400mm	25 @ 1500mm
675mm to 700mm			25 @ 3000mm	25 @ 2400mm	25 @ 1500mm	25 @ 1200mm
725mm to 750mm			25 @ 3000mm	25 @ 2400mm	25 @ 1500mm	25 @ 1200mm
775mm to 900mm			-	25 @ 1500mm	25 @ 1200mm	25 @ 1500mm C @ 750 mm
925mm to 1050mm			-	25 @ 1500mm	25 @ 1200mm	25 @ 1500mm C @ 750 mm
1075mm to 1200mm			25 @ 1500mm	25 @ 1200mm	25 @ 1500mm E @ 750 mm	25 @ 1500mm E @ 750 mm
1225mm to 1350mm			35 @ 1200mm	35 @ 1500mm	35 @ 1200mm	35 @ 1500mm F @ 750mm
1375mm to 1500mm			35 @ 1200mm	35 @ 1500mm	35 @ 1200mm	35 @ 1500mm G @ 750mm
1525mm to 1800mm	35 @ 1500mm	35 @ 1500mm	35 @ 1200mm	35 @ 1200mm H @ 600mm	35 @ 1500mm H @ 750mm	35 @ 1200mm H @ 600mm
1825mm to 2100mm	35 @ 1500mm	35 @ 1500mm	35 @ 1200mm	35 @ 1200mm H @ 600mm	-	-
2125mm to 2400mm	35 @ 1500mm	35 @ 1500mm	35 @ 1200mm	35 @ 1200mm J @ 600mm	-	-
OVER 2400 mm	35 @ 1500mm	35 @ 1500mm	-	35 @ 1200mm J @ 600mm	-	-

75 MM Static Pressure		Rectangular Duct Construction				
TRANSVERSE JOINT Crayflange 25mm or 35mm @ MAXIMUM SPACING INTERMEDIATE REINFORCEMENT AS PER TABLE 1 – 10						
DUCT SIZE	SHEET THICKNESS					
	16 GA.	18 GA.	20 GA.	22 GA.	24 GA.	26 GA.
200mm DN						25 @ 1500mm
225mm to 250mm					25 @ 2400mm	25 @ 1500mm
275mm to 300mm					25 @ 2400mm	25 @ 1500mm
325mm to 350mm				25 @ 3000mm	25 @ 2400mm	25 @ 1500mm
375mm to 400mm				25 @ 3000mm	25 @ 2400mm	25 @ 1500mm
425mm to 450mm				25 @ 3000mm	25 @ 2400mm	25 @ 1500mm
475mm to 500mm			25 @ 3000mm	-	25 @ 2400mm	25 @ 1500mm
525mm to 550mm			25 @ 3000mm	-	25 @ 2400mm	25 @ 1500mm
575mm to 600mm			-	25 @ 2400mm	-	25 @ 1500mm
625mm to 650mm			-	25 @ 2400mm	-	25 @ 1500mm
675mm to 700mm			25 @ 2400mm	-	25 @ 1500mm	25 @ 1200mm
725mm to 750mm			25 @ 2400mm	-	25 @ 1500mm	-
775mm to 900mm			-	25 @ 1500mm	25 @ 1200mm	-
925mm to 1050mm			-	25 @ 1500mm	25 @ 1200mm	-
1075mm to 1200mm			25 @ 1200mm	35 @ 1500mm	35 @ 1200mm	35 @ 1500mm E @ 750mm
1225mm to 1350mm		35 @ 1500mm	35 @ 1200mm	-	35 @ 1500mm E @ 750 mm	35 @ 1200mm E @ 600mm
1375mm to 1500mm		35 @ 1500mm	35 @ 1200mm	-	35 @ 1500mm G @ 750 mm	35 @ 1200mm F @ 600mm
1525mm to 1800mm	35 @ 1200mm	-	-	35 @ 1500mm H @ 750mm	35 @ 1200mm H @ 600mm	-
1825mm to 2100mm		-	35 @ 1500mm J @ 750 mm	35 @ 1200mm I @ 600mm	-	-
2125mm to 2400mm	-	35 @ 1500mm G @ 750 mm	35 @ 1200mm J @ 600 mm	-	-	-
OVER 2400 mm		35 @ 1500mm H @ 750 mm	35 @ 1200mm J @ 600 mm	-	-	-

100 MM Static Pressure		Rectangular Duct Construction				
TRANSVERSE JOINT Crayflange 25mm or 35mm @ MAXIMUM SPACING INTERMEDIATE REINFORCEMENT AS PER TABLE 1 – 10						
DUCT SIZE	SHEET THICKNESS					
	16 GA.	18 GA.	20 GA.	22 GA.	24 GA.	26 GA.
200mm DN						25 @ 1500mm
225mm to 250mm					25 @ 2400mm	25 @ 1500mm
275mm to 300mm					25 @ 2400mm	25 @ 1500mm
325mm to 350mm			25 @ 3000mm	-	25 @ 2400mm	25 @ 1500mm
375mm to 400mm			25@ 3000mm	-	25 @ 2400mm	25 @ 1500mm
425mm to 450mm				25 @ 2400mm	-	25 @ 1500mm
475mm to 500mm				25 @ 2400mm	25 @ 1500mm	25 @ 1200mm
525mm to 550mm			25 @ 2400mm	-	25 @ 1500mm	25 @ 1200mm
575mm to 600mm			25 @ 2400mm	-	25 @ 1500mm	25 @ 1200mm
625mm to 650mm			25 @ 2400mm	-	25 @ 1500mm	25 @ 1200mm
675mm to 700mm				25 @ 1500mm	25 @ 1200mm	25 @ 1500mm D @ 750 mm
725mm to 750mm				25 @ 1500mm	25 @ 1200mm	25 @ 1500mm D @ 750 mm
775mm to 900mm			25 @ 1500mm	25 @ 1200mm	25 @ 1500mm D @ 750mm	25 @ 1500mm E @ 750mm
925mm to 1050mm			25 @ 1200mm	35 @ 1500mm	-	25 @ 1500mm E @ 750mm
1075mm to 1200mm			35 @ 1500mm	35 @ 1200mm	35 @ 1500mm F @ 750mm	35 @ 1200mm E @ 750mm
1225mm to 1350mm		35 @ 1500mm	35 @ 1200mm	-	35 @ 1500mm G @ 750 mm	35 @ 1200mm F @ 750mm
1375mm to 1500mm	35 @ 1500mm	35 @ 1200mm	35 @ 1500mm F @ 750mm	-	35 @ 1500mm G @ 750 mm	35 @ 1200mm G @ 600mm
1525mm to 1800mm			35 @ 1500mm G @ 750mm	35 @ 1200mm H @ 600mm	-	-
1825mm to 2100mm		35 @ 1500mm J @ 750mm	35 @ 1200mm J @ 600mm	-	-	-
2125mm to 2400mm		35 @ 1500mm H @ 750 mm	35 @ 1200mm G @ 600 mm	-	-	-
OVER 2400 mm		35 @ 1500mm H @ 750 mm	35 @ 1200mm J @ 600 mm	-	-	-

150 MM Static Pressure		Rectangular Duct Construction				
TRANSVERSE JOINT Crayflange 25mm or 35mm @ MAXIMUM SPACING INTERMEDIATE REINFORCEMENT AS PER TABLE 1 – 10						
DUCT SIZE	SHEET THICKNESS					
	16 GA.	18 GA	20 GA.	22 GA.	24 GA.	26 GA.
200mm DN					25 @ 1500mm	25 @ 1200mm
225mm to 250mm					25 @ 1500mm	25 @ 1200mm
275mm to 300mm			25 @ 3000mm	-	25 @ 1500mm	-
325mm to 350mm			25 @ 2400mm	25 @ 1500mm	25 @ 1200mm	-
375mm to 400mm				25 @ 1500mm	25 @ 1200mm	-
425mm to 450mm				25 @ 1500mm	25 @ 1200mm	-
475mm to 500mm				25 @ 1500mm	25 @ 1200mm	-
525mm to 550mm				25 @ 1500mm	25 @ 1200mm	-
575mm to 600mm				25 @ 1500mm	25 @ 1200mm	-
625mm to 650mm				25 @ 1500mm	25 @ 1200mm	-
675mm to 700mm				25 @ 1500mm	25 @ 1200mm	25 @ 1500mm E @ 750 mm
725mm to 750mm				25 @ 1500mm	25 @ 1200mm	25 @ 1500mm E @ 750 mm
775mm to 900mm			25 @ 1500mm	25 @ 1200mm	-	25 @ 1500mm E @ 750mm
925mm to 1050mm		35 @ 1500mm	-	35 @ 1200mm	35 @ 1500mm G @ 750mm	35 @ 1200mm E @ 600mm
1075mm to 1200mm		35 @ 1500mm	-	35 @ 1200mm	35 @ 1500mm G @ 750mm	35 @ 1200mm E @ 600mm
1225mm to 1350mm	35 @ 1200mm	35 @ 1200mm	-	35 @ 1500mm H @ 750mm	35 @ 1200mm G @ 600 mm	-
1375mm to 1500mm	35 @ 1500mm	-	-	35 @ 1500mm J @ 750mm	35 @ 1200mm H @ 600 mm	-
1525mm to 1800mm		35 @ 1500mm J @ 750mm	35 @ 1200mm J @ 600mm	-	-	-
1825mm to 2100mm		35 @ 1500mm	35 @ 1200mm	-	-	-
2125mm to 2400mm	35 @ 1500mm	35 @ 1200mm	-	-	-	-
OVER 2400 mm		35 @ 1500mm J @ 750 mm	35 @ 1200mm J @ 600 mm	-	-	-

Crayflange

TURNING VANE SYSTEM

Product Details and Specification

MATERIAL SPECIFICATION

Model No. Standard Length

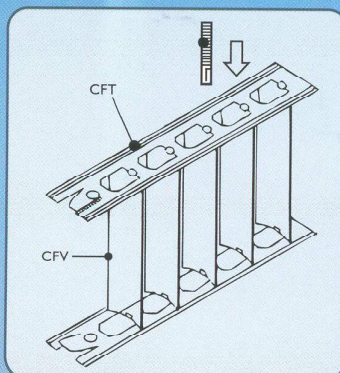
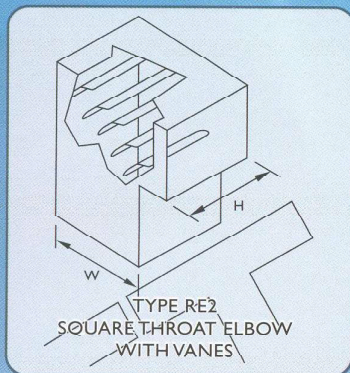
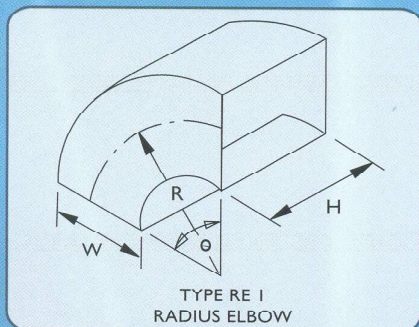
CFV 3.00m

CFT 2.44m

Coating : Hot Dipped Galvanized Steel

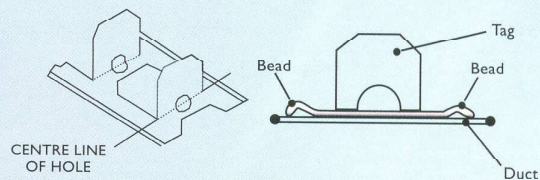
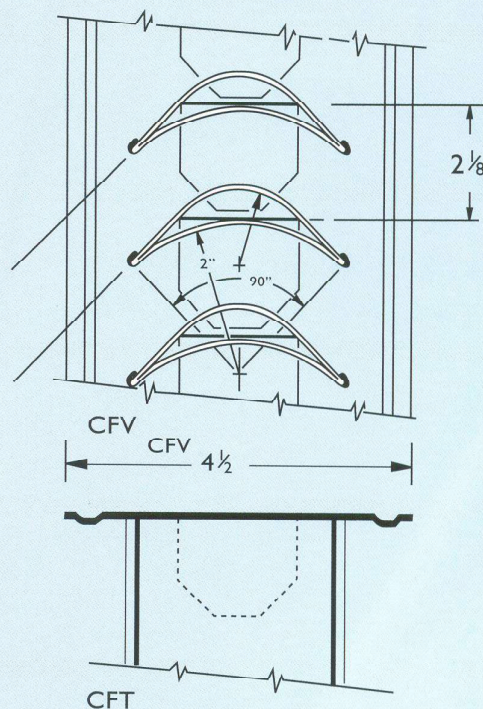
Meet : ASTM-A653&ASTMA 924-Z27 (G-90) Zinc Coating

Aerofoil turning vane and fixing track can also be supplied, manufactured from type AA1100H14 aluminium sheet.

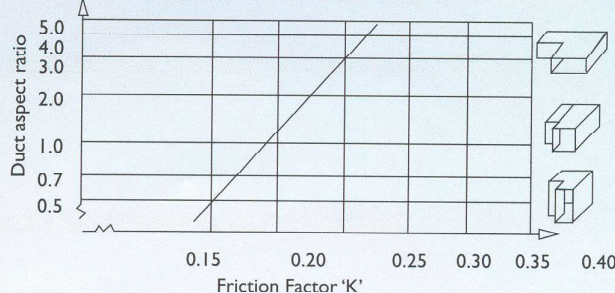


Dimensions

2" AIR TURNING VANE WITH
PUSH-TYPE SIDE RAIL



Pressure Loss Data



Dimension Specification

Square bends shall be fitted with turning vanes, with a maximum spacing between the vanes of 60mm. They shall have an inner radius of 50mm and the maximum length of unsupported vane shall be 1250mm. The completed turning vane assembly shall be fitted into the duct by mechanically closed rivets or bolts.



Craystik

Self Adhesive Grip Nails

Nail : 2.50 mm Diameter ElectroGalvanized Metal Gauge : 28 US Gauge

Base Dimension (Min) : 1 3/8" (MAX): 2"

Base Gasket : Double Sided PE Foam

Base Metal : Hot Galvanized Steel Sheet

Gasket Adhesive : Rubber Based Adhesive

Designed to meet SMACNA Standards ASTM-A 591

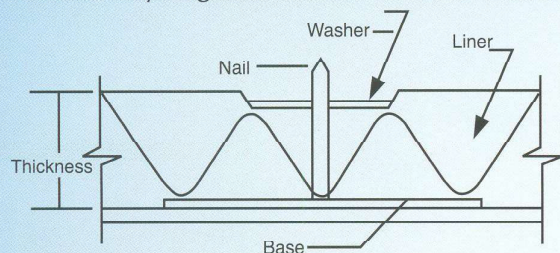
Craystik

PRODUCT & APPLICATION

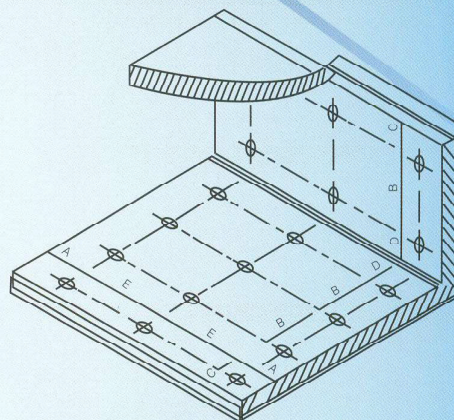
Grip Nails are Self Adhesive Fasteners. They are widely used in Heating, Ventilation, and Air Conditioning Systems, primarily for fixing external thermal insulation and internal acoustic liner onto the duct surface.

APPLICATION

Grip nails are self adhesive fasteners used to fix thermal insulation or acoustic liner onto the duct surface, internally or externally. Together with duct insulation adhesive, these



grip nails hold the insulation firmly, not allowing any sagging and thereby preventing any condensation. However care needs to be taken for a proper insulation selection in line with the local climatic conditions.



INSTRUCTIONS FOR USE

Following instructions need to be complied to achieve optimum performance from the Crayford Insulation Grip Nails.

- Clean the surface, which will receive the insulation grip nail.
- Comply as per the figure the spacing of the grip nails to have maximum and uniform adherence over the duct surface.
- Fix the washer tightly over the insulation after the insulation roll / boards are laid out.
- For external insulation application. it is recommended that the bottom and side surfaces of duct use grip nails to prevent sagging of the insulation blanket.

Peel Adhesion : 30N/25mm

Velocity*	Dimensions				
	A	B	C	D	E
0 - 2500 FPM (0 - 12.7 MPS)	3" (76.2)	12" (305)	4" (102)	6" (152)	18" (457)
2501 - 6000 FPM (12.7 - 30.5 MPS)	3" (76.2)	6" (152)	4" (102)	6" (152)	16" (406)

Product Code	Base Dimension	Nail Length	Quantity (pieces/box)	Insulation Thickness
SAGN 1 - 112	1 3/8"	1 1/2"	1000	1"
SAGN 1 - 134	1 3/8"	1 3/4"	1000	1 1/2"
SAGN 1 - 200	1 3/8"	2"	1000	1 1/2"
SAGN 1 - 212	1 3/8"	2 1/2"	1000	2"
SAGN 2 - 034	2"	3/4"	500	1/2"
SAGN 2 - 114	2"	1 1/4"	500	1"
SAGN 2 - 134	2"	1 3/4"	500	1 1/2"
SAGN 2 - 200	2"	2"	500	1 1/2"
SAGN 2 - 212	2"	2 1/2"	500	2"
SAGN 2 - 412	2"	4 1/2"	500	4"

All specification are subject to change without notice.



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Fax: +44 208 541 3874, Email : sales@crayfordtechnic.co.uk
Website : www.crayfordtechnic.co.uk

Contact your nearest crayford technic Agent / Distributor for more information

Authorized Distributor

مؤسسة ناجي محمد الغرابلي
N. M. Al-Gharably Est.
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Manufactured under Technical license by
FOCUS AIR CONDITIONING INDUSTRIES LLC

An ISO 9001 : 2008 Certified Company

P.O.Box : 37945, Dubai, U.A.E. , Website: www.focusaircon.net

CraYcoat 81-10

Description :	CraYglue 81 - 10 is premium quality, single component, synthetic rubber based adhesive with special additives and tackyfier. It is specially formulated for porous and non-porous surfaces in humid and hot climatic conditions. It has excellent water and alkali resistance and is inflammable.
Application:	CraYglue 81 - 10 highly recommended in applications where fibrous glass and other type of insulation are bonded to the interior or exterior of metal duct system.
Features	CraYglue 81 - 10 has following features: <ul style="list-style-type: none"> * Excellent bonding to most of porous and non-porous surfaces. * Water resistant. * Chemical resistant. * Suitable to middle east climatic conditions. * Very easy to apply. * Economical.
Surface Preparations:	The surface should be structurally sound, clean, dry, leveled and free from dust curing compound grease and other loose debris according to BS 8203 .
Application Procedure:	<p>Apply CraYglue 81 - 10 with brush, roller or pressure feeding equipment evenly on both surfaces, wait until solvent is fully evaporated. After the evaporation of solvent in adhesive, assemble the surface by applying normal hand pressure.</p> <p>In case of fibrous wool, apply CraYglue 81 - 10 evenly by brush or any suitable equipment over the GI sheet and wait for 5 to 10 minutes before bonding the glass wool.</p>
Exposure Time	10 to 20 minutes depending upon applied film thickness and substrate.
Coverage	The wet coverage of CraYglue 81 - 10 is 6 to 8 m ² /kg subjected to type of surface and nature of material being bonded. To get proper coverage, always keep the container's spout closed to prevent the solvent evaporation.

Caution	Adequate ventilation must be maintained, particularly in confined spaces. due to volatile nature of solvent, keep away from source of ignition such as pilot lights or sparks. Prohibition of smoking must be rigidly enforced in the vicinity of use. To prevent and minimize the evaporation of solvent, use spout only instead of opening the lid of container.	
Typical Physical Properties	Base	Synthetic modified rubber
	No. of component	Single
	Color	Green / Transparent Yellow and Amber Red
	Solid %	28 ± 5
	Consistency	Flow able liquid
	Viscosity (Brook field)	@ 25°C, S6, rpm 20 1000 to 8000 cps
	Density	0.85 ± 0.10
	Service Temp.	-25 C to + 90C
	Flash Point	Below 10°C
	Water Resistance	Excellent
	Chemical resistance	Good
	Solubility	Hydro Carbon
Storage	Store under cover, protect from direct sunlight and high temperature (.25C). Shelf life is up to 12 months in an unopened container when stored as directed.	
Health & Safety	<p>Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. Please follow the petroleum regulation and law of the land.</p> <p>As with all chemicals, caution should always be exercised. Protective clothing such as gloves and goggles should be worn. Inhalation: Inhalation of vapor or mist should be avoided. If inhaled symptoms include coughing, wheezing, laryngitis, and shortness of breath, headache, nausea, and vomiting. Immediately shift victim to fresh air and if needed immediately start artificial respiration. Give oxygen if breathing is labored. Get emergency medical help. Eye contact: Flush eyes with water for 15 minutes and call for medical help. Ingestion: Causes nausea, vomiting, and loss of consciousness. If accidentally swallowed do not induce vomiting rather call for medical help immediately. Skin contact: Flush with water or soap and water until all traces have been removed. Seek medical attention if required. Precaution: Please refer to the appropriate material data sheet (MSDS) prior to using this product. FOR INDUSTRIAL USE ONLY.</p>	

Marketed by :

FOCUS AIR CONDITIONING INDUSTRIES LLC

An ISO 9001 : 2008 Certified Company

(Under Technical License Collaboration with M/s. CRAYFORD TECHNIC LIMITED, U.K.)

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STAR ACRYSEAL[®]

Duct Sealant

Product Data Sheet



GMP Certified



DESCRIPTION

STAR ACRYSEAL is a aqua based, vapor barrier sealant for low, medium and high pressure or high velocity – metal, fiberglass and flexible heating and air conditioning air ducts, forming a durable seal against air leakage.

APPLICATION

- HVAC Application
- It is also used as an adhesive to metal, aluminum, Ceramic, Concrete, mild steel, etc.
- Conforms to ASTM C-411 (Hot Surface Performance of High Temperature Thermal Insulation)
- Conforms to ASTM C-732 (Aging Effects of Artificial Weathering on Latex Sealants)
- Conforms to ASTM D-2202 (Slump Test)
- It does not contain Asbestos, Lead, Mercury or Mercury compounds
- It can be applied using a wide variety of power extrusion equipment suitable for use with water base sealant.

ADVANTAGES

- Non-Flammable
- Excellent adhesion & High strength
- Highly resistance to extreme temperature changes and aging.
- Suitable to Middle East climatic condition
- Highly resistance to mold & mildew
- Highly Elastic
- Resistance to oil or grease
- Mildly resistance to diluted alkalis and acids

DIRECTIONS FOR USE

The surface should be clean, dry, oil-free and sounded (To clean surface use power blower). Apply by power extrusion or trowel uniformly a 2" wide coat over the joint @ 2 to 2.2 gal/100 ft². Total coverage 40-55 ft²/gal. Allow the completed joint to dry at least 24 hours above 25°C before pressure testing. High humidity (70%) and or cooler temp. may retard drying. Total WFT to be 30-35 mils.

STORAGE:

- Store under cover, protect from direct sunlight and high temperature (> 30°C).
- Shelf life is up to 12 months in unopened container when stored as directed.

TECHNICAL SPECIFICATION

Base	Synthetic resin
Color	White / Grey
Appearance	Smooth paste
Density, kg/L	1.65 -1.75
Viscosity Flow (ASTM C 639)	Non- Sag
Service Temperature, °C	+ 5 °C - +85°C
Bead Consistency	Non-Sag bead free of air bubbles
Cleaning	Clean all tools with warm water & soap when wet. Mineral spirit when dry.

HEALTH & SAFETY :

As with all chemicals, caution should always be exercised. Protective clothing such as gloves and goggles should be worn.

INHALATION: Inhalation of vapor or mist should be avoided. If inhaled symptoms include coughing, wheezing, laryngitis, and shortness of breath, headache, nausea, and vomiting. Immediately shift victim to fresh air, and, if needed immediately start artificial respiration. Give oxygen if breathing is labored. Get emergency medical help.

EYE CONTACT: Flush eyes with water for 15 minutes and call for medical help.

INGESTION: Causes nausea, vomiting, and loss of consciousness. If accidentally swallowed do not induce vomiting rather call for medical help immediately.

SKIN CONTACT: Flush with water or soap and water until all traces have been removed. Seek medical attention if required.

WARRANTY

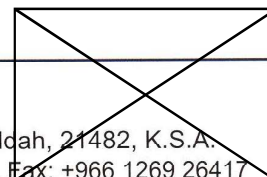
The information given is based on our knowledge and performance of the material. Every precaution is taken in the manufacture of the product and responsibility is limited to the quality of supplies with no guarantee of results in the field, as manufacturer has no control over site conditions or execution of work.



STAR ADHESIVE & RESIN IND. FACTORY

P.O.Box: 7558, Umm Al Quwain - U.A.E.
Tel. : +971 6 767 3033, Fax: +971 6 767 3022

P.O. Box 8091, Jeddah, 21482, K.S.A.
Tel: +966 1267 77073, Fax: +966 1269 26417





STARFIX®
DG-81-10

Product Data Sheet



GMP Certified

An ISO 9001:2008 Certified

DESCRIPTION

STARFIX DG-81-10 is inflammable, one component adhesive based on synthetic modified rubber with special tackifier and additives.

APPLICATION

- Ideal for use in application where fibrous glass wool or similar insulation are bonded to the interior or exterior of metal duct systems.
- It can be use for most porous & non-porous surface.
- It can be applied easily by brush, roller & pressure feeding equipment evenly on both surfaces.

ADVANTAGES

- Economical.
- Excellent Cohesive & Bonding strength.
- Water Resistance
- Chemical Resistance
- Good wet tack
- Suitable to Middle East climatic condition.

DIRECTIONS FOR USE

The surface should be clean, dry, and free from oil, grease and loose particle. For fibrous wool & GI sheet, apply adhesive evenly with any suitable equipment and wait for 5 to 10 minutes before bonding the glass wool. For other substrates, after applying the adhesive wait until solvent is fully evaporated and assemble the surface by applying normal hand pressure.

STORAGE:

- Store under cover, protect from direct sunlight and high temperature (> 35°C).
- Shelf life is up to 12 months in unopened container when stored as directed.

TECHNICAL SPECIFICATION

Base	Synthetic modified rubber
Color	Green, transparent Yellow and Amber Red
Viscosity , Cps @25°C, S 3, rpm 20	3,000 - 4,500
Solid Content, % @110°C, 2 hr	24 – 28
Density, kg/L	0.88 – 0.94
Coverage, m ² /kg	6.0 – 8.0
Flash Point, °C	< 10
Service Temp, °C	-20 to +90
Open Time, min	10 - 20
Solubility	Aromatic Solvent
Cleaning	Clean all tools immediately with aromatic solvent

HEALTH & SAFETY :

As with all chemicals, caution should always be exercised. Protective clothing such as gloves and goggles should be worn.

INHALATION: Inhalation of vapor or mist should be avoided. If inhaled symptoms include coughing, wheezing, laryngitis, and shortness of breath, headache, nausea, and vomiting. Immediately shift victim to fresh air, and, if needed immediately start artificial respiration. Give oxygen if breathing is labored. Get emergency medical help.

EYE CONTACT: Flush eyes with water for 15 minutes and call for medical help.

INGESTION: Causes nausea, vomiting, and loss of consciousness. If accidentally swallowed do not induce vomiting rather call for medical help immediately.

SKIN CONTACT: Flush with water or soap and water until all traces have been removed. Seek medical attention if required.

WARRANTY

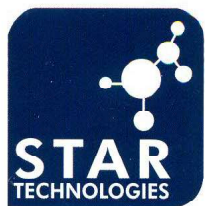
The information given is based on our knowledge and performance of the material. Every precaution is taken in the manufacture of the product and responsibility is limited to the quality of supplies with no guarantee of results in the field, as manufacturer has no control over site conditions or execution of work.



STAR ADHESIVE & RESIN IND. FACTORY

P.O.Box: 7558, Umm Al Quwain - U.A.E.
Tel. : +971 6 767 3033, Fax: +971 6 767 3022

P.O. Box 8091, Jeddah, 21482, K.S.A.
Tel: +966 1267 77073, Fax: +966 1269 26417



STARBOND®
UL-30-36

Product Data Sheet



GMP Certified

DESCRIPTION

STARBOND UL-30-36 is a UL certified, tough and flexible adhesive and sealant, forming a durable seal against air leakage.

APPLICATION

- It can be applied easily by brush, roller and airless spray (please contact your equipment supplier followed by product viscosity mentioned in data).
- It has excellent water, chemical, abrasion and U.V resistance.
- It is recommend to be used on metal duct in outdoors and indoors thermal insulation systems.

ADVANTAGES

- Good Adhesion and high strength.
- Water resistance
- Non-toxic & non-flammable.
- UV Resistance.
- Chemical Resistance
- Antifungal & Antibacterial.
- Suitable to Middle East climatic condition.
- High temperature resistance.
- Highly waterproof.

DIRECTIONS FOR USE

The surface should be clean, dry, and free from oil, grease and loose particle. Apply a tack coat of adhesive @ 1- 1.7 m²/L. After applying tack coat immediately imbed the selected lagging fabric smoothly into the wet coating. Apply two finish coat of adhesive . It is very important to ensure that each coat of adhesive is totally cured before the next coat is applied. The dry film thickness will vary with fabric selected.

STORAGE:

- Stored under cover, protect from direct sunlight and high temperature (> 35°C).
- Shelf life is up to 12 months in unopened container when stored as directed.

WARRANTY :

The information given is based on our knowledge and performance of the material. Every precaution is taken in the manufacture of the product and responsibility is limited to the quality of supplies with no guarantee of results in the field, as manufacturer has no control over site conditions or execution of work.

TECHNICAL SPECIFICATION

Base	Special Synthetic resin
Appearance	Thixotropic like paste
Color	White
Viscosity , Cps @25°C, S6, rpm 20	25,000 - 50,000
Solid Content, % @ 110°C, 2 hrs	57- 63
Density, kg/L	1.32 – 1.38
Coverage Range , m ² /L per coat As per FSTM 72	1.0 – 1.7
Wet film thickness, mm per coat	1.0 - 0.6
Bonding Time, min @20°C,50% RH	45
Drying Time, hr As per ASTM D 1640-03	3 – 4
Cleaning	Clean all tools immediately with warm water



ADHESIVES

SURFACE BURNING CHARACTERISTICS

Applied to Inorganic Reinforced Cement Board

Flame Spread : 0
Smoked Developed: 0

Tested as applied at a coverage rate of 1.0 m²/L
Number of coats 1

HEALTH & SAFETY :

As with all chemicals, caution should always be exercised. Protective clothing such as gloves and goggles should be worn.

INHALATION: *Inhalation of vapor or mist should be avoided. If inhaled symptoms include coughing, wheezing, laryngitis, and shortness of breath, headache, nausea, and vomiting. Immediately shift victim to fresh air, and, if needed immediately start artificial respiration. Give oxygen if breathing is labored. Get emergency medical help.*

EYE CONTACT: *Flush eyes with water for 15 minutes and call for medical help.*

INGESTION: *Causes nausea, vomiting, and loss of consciousness. If accidentally swallowed do not induce vomiting rather call for medical help immediately.*

SKIN CONTACT: *Flush with water or soap and water until all traces have been removed. Seek medical attention if required.*



TST (UL)
MADE IN INDIA



Pipe Hangers & Support Systems



Valves

Certificates



Multiple Listing Correlation Sheet

Issued: 2017-04-17
Revised: 2017-05-12

ML FILE NO. EX27483

MULTIPLE LISTING
of
HANGERS, PIPE
(VFXT)
for

[1705306]

TAYSSEER SERVICES TRADING CO. ELECTRO
MECHANICAL SOLUTIONS

Basically Listed for:

[651388]

SAKETH EXIM PRIVATE LIMITED

Basically Listed products covered by Procedure and/or Reports under File No. EX16250, Volume 1

Products Covered	Report Date	Basic Applicant's (Supplier's) Product Designation	Multiple Listee's Product Designation
	2013-06-28	Pipe Clamp (PC-1) 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3	Pipe Clamp (PC-1) 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3
		Pipe Clamp (PC-2) 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3	Pipe Clamp (PC-2) 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3
		Clevis Hanger (SCH) 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8	Clevis Hanger (SCH) 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 5, 6, 8
		Band Hanger (SH) 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 6, 8	Band Hanger (SH) 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4, 6, 8

MARKING: Same as that described in Follow-Up Service Procedure and/or Report except for Multiple Listee's name, file number, Trademark / Tradename, **TST** when applicable, and product designation. The Control Number remains [5EF5].

LITERATURE: If literature is packaged with the Multiple Listed product(s) it shall be in compliance with the requirements outlined in the appropriate UL Standard(s).

5/11/2017

VFXT.EX27483 - Hangers, Pipe



ONLINE CERTIFICATIONS DIRECTORY

VFXT.EX27483 Hangers, Pipe

[Page Bottom](#)

Hangers, Pipe

[See General Information for Hangers, Pipe](#)

TAYSSEER SERVICES TRADING CO. ELECTRO MECHANICAL SOLUTIONS

11427

Riyadh, Saudi Arabia P.O.Box 28520 SAUDI ARABIA

EX27483

Pipe hangers

Model Designation	Hanger Type	Rod Size	Nominal Pipe Size	Comments
PC-1	Pipe Clamp	10 mm	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3	-
PC-2	Pipe Clamp	10 mm	1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3	-
SCH	Clevis Hanger	10 mm	1/2, 3/4, 1, 1-1/4, 1-1/2, 2	-
SCH	Clevis Hanger	12 mm	2-1/2, 3, 4	-
SCH	Clevis Hanger	16 mm	5, 6, 8	-
SH	Band Hanger	10 mm	3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 4	-
SH	Band Hanger	12 mm	6, 8	-

Last Updated on 2017-04-17

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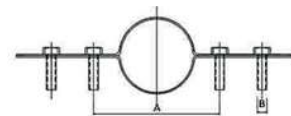
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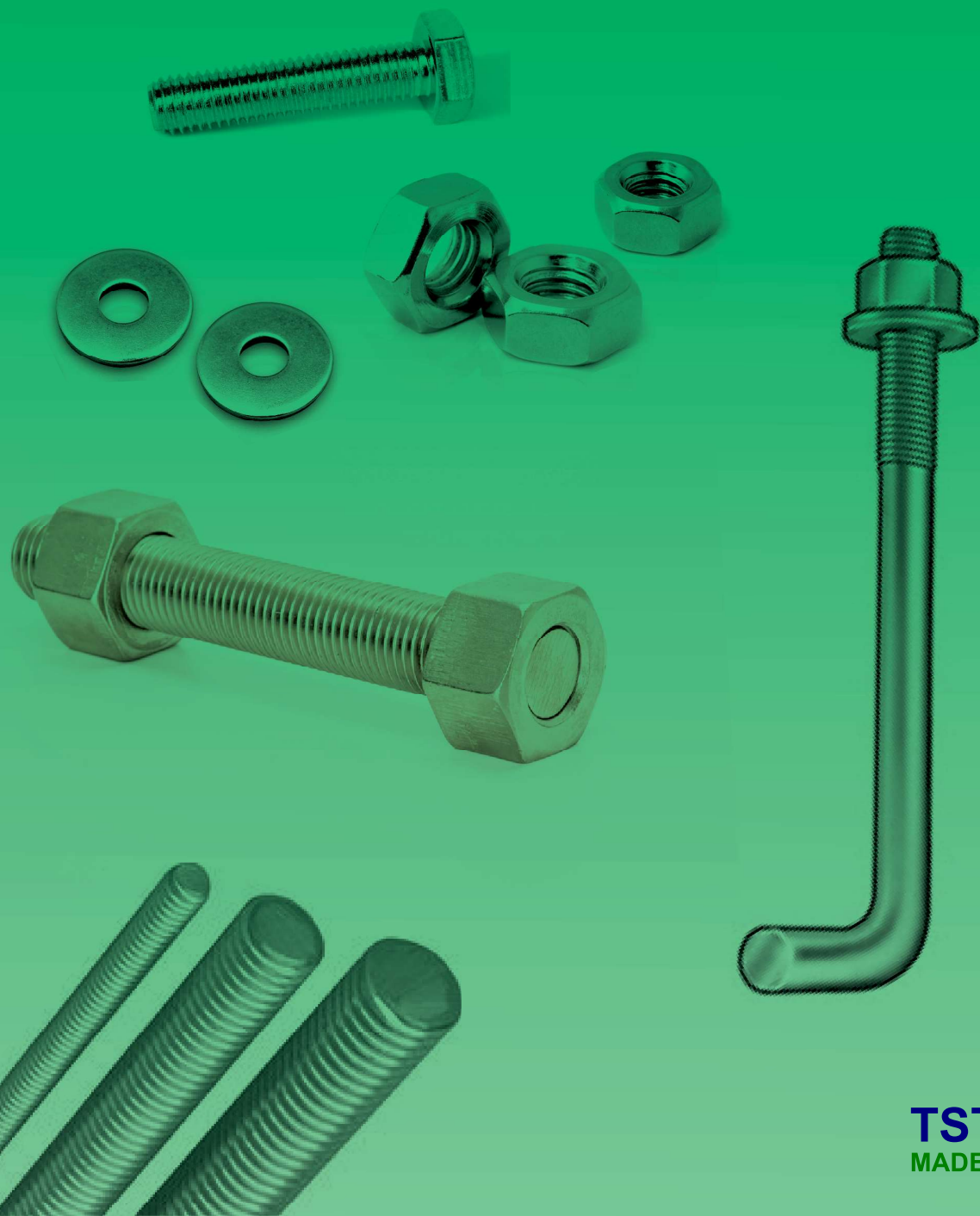
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Threaded Bar & Accessory



Threaded Bar
& Accessory

TST (UL)
MADE IN INDIA

Copper Tube



For decades, Mueller has been producing the best and most trusted copper tube in the industry. The only U.S. manufacturer of both copper tube and copper fittings, Mueller offers a full line of copper tube and coated copper tube products for plumbing, air conditioning, refrigeration, and various other applications. Mueller's ongoing commitment to quality continues to make it the preferred and specified brand of industry professionals.

- Meets applicable ASTM standards B-88, B-306, B-280, B-819
- NSF Approved
- Made in the USA



COPPER TUBE • PLUMBING

NOM	O.D.	Type K			Type L			Type M	DWV	MEDICAL GAS	
		Hard Lengths	Soft Coils	Soft Lengths	Hard Lengths	Soft Coils	Soft Lengths	Hard Lengths	Hard Lengths	Type K Hard Lengths	Type L Hard Lengths
1/4"	3/8"	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft	60ft, 100ft	10ft, 20ft			10ft, 20ft	10ft, 20ft
3/8"	1/2"	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft		10ft, 20ft	10ft, 20ft
1/2"	5/8"	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft		10ft, 20ft	10ft, 20ft
5/8"	3/4"	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft		10ft, 20ft	10ft, 20ft
3/4"	7/8"	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft		10ft, 20ft	10ft, 20ft
1"	1-1/8"	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft		10ft, 20ft	10ft, 20ft
1-1/4"	1-3/8"	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft
1-1/2"	1-5/8"	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft	60ft, 100ft	10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft
2"	2-1/8"	10ft, 20ft	40ft, 60ft	10ft, 20ft	10ft, 20ft	40ft, 60ft	10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft
2-1/2"	2-5/8"	10ft, 20ft		10ft, 20ft	10ft, 20ft		10ft, 20ft	10ft, 20ft		10ft, 20ft	10ft, 20ft
3"	3-1/8"	10ft, 20ft		10ft, 20ft	10ft, 20ft		10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft
3-1/2"	3-5/8"	10ft, 20ft			10ft, 20ft			10ft, 20ft		10ft, 20ft	10ft, 20ft
4"	4-1/8"	10ft, 20ft			10ft, 20ft			10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft
5"	5-1/8"	10ft, 20ft			10ft, 20ft			10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft
6"	6-1/8"	10ft, 20ft			10ft, 20ft			10ft, 20ft		10ft, 20ft	10ft, 20ft
8"	8-1/8"	10ft, 20ft			10ft, 20ft			10ft, 20ft		10ft, 20ft	10ft, 20ft

(Nitrogenized thru 3-1/8" Only)

COPPER TUBE • REFRIGERATION

TUBE & PIPE

METAL FITTINGS
& NIPPLES

PLASTIC
FITTINGS

VALVES

FILTER-DRIERS
& STRAINERS

NITROGENIZED® ACR	
O.D.	Hard Lengths
3/8"	10ft, 20ft
1/2"	10ft, 20ft
5/8"	10ft, 20ft
3/4"	10ft, 20ft
7/8"	10ft, 20ft
1-1/8"	10ft, 20ft
1-3/8"	10ft, 20ft
1-5/8"	10ft, 20ft
2-1/8"	10ft, 20ft
2-5/8"	10ft, 20ft
3-1/8"	10ft, 20ft
3-5/8"	10ft, 20ft
4-1/8"	10ft, 20ft
5-1/8"	10ft, 20ft
6-1/8"	10ft, 20ft
8-1/8"	10ft, 20ft

REFRIGERATION SERVICE COILS	
O.D.	Soft Lengths
1/8"	50ft, 100ft
3/16"	50ft, 100ft
1/4"	50ft, 100ft
5/16"	50ft, 100ft
3/8"	50ft, 100ft
1/2"	50ft, 100ft
5/8"	50ft, 100ft
3/4"	50ft, 100ft
7/8"	50ft, 100ft
1-1/8"	50ft, 100ft
1-3/8"	50ft, 100ft
1-5/8"	50ft, 100ft

TEMPERATURE CONTROL TUBE				
O.D.	Wall Thickness .025		Wall Thickness .032	
	Hard Lengths	Soft Lengths	Hard Lengths	Soft Lengths
1/4"	10ft, 20ft	10ft, 20ft	10ft, 20ft	10ft, 20ft

Temperature Control Tube is not recommended for forming or bending purposes.

Temperature Control Tube order quantities are in 2000 ft. per box increments.

COPPER TUBE • PLASTIC COATED

Polyethylene coated copper tube: PlumbShield, GasShield, OilShield, Coated ACR

		Type K			Type L/ACR			Refrigeration Service Coils*
NOM	OD	Hard Lengths	Soft Lengths	Soft Coils	Hard Lengths	Soft Lengths	Soft Coils	Soft Coils
1/4"	3/8"	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	50ft., 100ft.
3/8"	1/2"	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	50ft., 100ft.
1/2"	5/8"	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	50ft., 100ft.
5/8"	3/4"	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	50ft., 100ft.
3/4"	7/8"	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	50ft., 100ft.
1"	1-1/8"	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	50ft., 100ft.
1-1/4"	1-3/8"	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	
1-1/2"	1-5/8"	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	10ft., 20ft.	10ft., 20ft.	60ft., 100ft.	
2"	2-1/8"	10ft., 20ft.	10ft., 20ft.	40ft., 60ft.	10ft., 20ft.	10ft., 20ft.	40ft., 60ft.	

PlumbShield™ available in blue and red for water applications and purple for reclaimed water

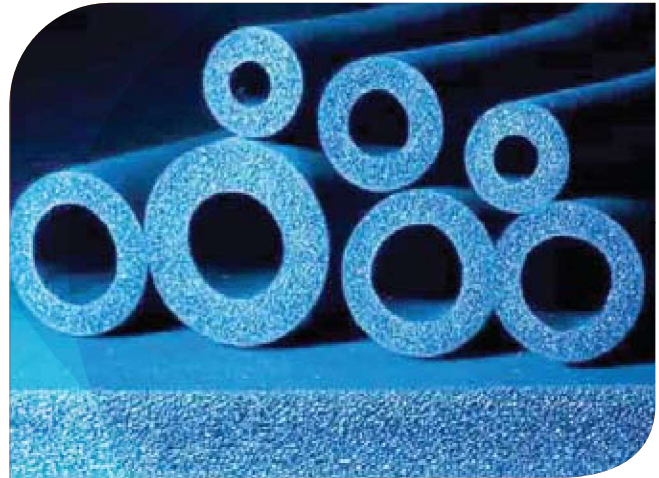
GasShield™ available in yellow for natural and LP Gas applications

OilShield™ available in orange for fuel and oil applications

Coated ACR available in White for HVAC applications

* Available in OD sizes only





IsoFlex foam tube and sheet are used for insulation of piping for heating, refrigeration, air conditioning, hot and cold water lines. It withstands temperatures from -40°C to 120°C .

Technology

Our special technology produces tubing and sheeting whose chemical structure and chemical composition makes it resistant to microorganism, ozone oils and most solvents. The internal and external skin permits exceptional resistance to water and vapour and allowing the installer an easy application as the tubing and sheeting slips on to the piping.

Characteristics and Advantages

- Low thermal conductivity (K value) makes it highly efficient and effective in the insulation of cooling or heating systems.
- The thermal blister close cell structure forms as impermeable layer which is in itself a good vapour barrier.

- It is suitable for application within the temperature range of -40°C to 125°C . »
- The material has been specially compounded to self-extinguishing in nature.
- IsoFlex has excellent ozone and ultraviolet resistance.
- It is CFC, asbestos, chlorine and fiber free and does not cause skin allergy.
- It is inert to most chemical agent and neutral to pipe metals.
- The extreme flexibility of the materials makes installation fast, easy and economical.
- It is able to withstand tearing, rough handling and severe site conditions.
- Much lesser space is needed for IsoFlex as a thinner wall is required due to its low K value as compared to other types of insulation.
- The smooth surface of IsoFlex material gives the finishes installation a neat and aesthetic appearance. No coating is necessary on most indoor installations.

Insulation Tube Sizes

IsoFlex		COPPER PIPE		IRON PIPE		TUBING-UNIT LENGTH 6 FEET (1.83M) OR 2 METER or continuous length (50 meter/roll)				
Nominal Insulation Size ID		Nominal Pipe Size OD		Nominal Pipe Size OD		Nominal 6mm wall thickness 1/4 inch	Nominal 9mm wall thickness 3/8 inch	Nominal 13mm wall thickness 1/2 inch	Nominal 19mm wall thickness 3/4 inch	Nominal 25mm wall thickness 1 inch
mm	inch	mm	inch	mm	inch	No. of Pcs. Per carton	No. of Pcs. Per carton	No. of Pcs. Per carton	No. of Pcs. Per carton	No. of Pcs. Per carton
6	1/4	6	1/4			200	170	110	60	-
10	3/8	10	3/8			175	140	90	40	30
13	1/2	13	1/2	6	1/4	160	120	75	40	25
16	5/8	16	5/8	10	3/8	120	90	60	35	25
19	3/4	19	3/4			110	80	45	30	20
22	7/8	22	7/8	13	1/2	90	70	40	30	20
25	1	25	1			-	60	40	25	20
28	1 1/8	28	1 1/8	19	3/4	-	50	36	25	18
32	1 1/4	32	1 1/4			-	42	30	20	15
35	1 3/8	35	1 3/8	25	1	-	36	30	20	15
42	1 5/8	42	1 5/8	31	1 1/4	-	30	25	17	12
48	1 7/8	48	1 7/8	38	1 1/2	-	25	20	15	10
51	2	51	2			-	20	18	15	10
54	2 1/8	54	2 1/8			-	20	18	15	9
60	2 3/8	60	2 3/8	50	2	-	20	18	15	9
67	2 5/8	67	2 5/8			-	18	18	12	8
73	2 7/8	73	2 7/8	64	2 1/2	-	18	15	10	6
76	3	76	3			-	15	15	10	6
79	3 1/8	79	3 1/8			-	15	12	10	6
89	3 1/2	89	3 1/2	70	3	-	12	12	10	6

METAL JACKETING

ITW Insulation Systems offers a complete metal jacketing system to fit every need, globally supplying high quality aluminum and stainless steel jacketing. All of these metals are laminated with Polysurlyn moisture retarder, providing excellent mechanical and weather protection on insulated piping, tanks and equipment.

These metals are suitable for industrial conditions that currently exist in refineries, petrochemical, gas, LNG and power plants, as well as for commercial work, such as chilled water, roof tops and ducting.

The most common gauges specified and used for rolled jacketing (smooth, stucco embossed or corrugated) are 0.4mm, 0.5mm, 0.6mm, 0.8mm, and 1mm thickness.

Aluminium Jacketing from ITW Insulation Systems meets the New ASTM Standards, C1729-10A.

Polysurlyn lined aluminum pressed elbows are available in 90° along with a wide range of accessories and tools, used mainly in the insulation industry.



Multiple Insulation Solutions, **One Manufacturer**, Global Reach.

DESCRIPTION

ITW Pabco/Childers Aluminum Roll Jacketing is the premier protective outer surface for mechanical insulation systems including pipe, vessels, and equipment. It protects the insulation and underlying pipe/vessel from physical damage, UV exposure, corrosive atmospheres, and water.

ITW Aluminum Roll Jacketing (also called cladding) is available in smooth, stucco embossed, and 3/16 corrugated (cross-crimped) finishes. For larger surfaces, box-rib and deep corrugated sheets are also available.

ITW Aluminum Roll Jacketing has a bare outer surface and comes standard with a 3 mil thick polysurlyn moisture barrier heat-laminated to the interior surface to help prevent corrosion of the jacketing and the underlying metal pipe, vessel, or equipment.

COMPOSITION

Commercially pure aluminum is relatively soft and less suited for use in this application. Its strength can be greatly improved by alloying with small percentages of one or more other elements such as manganese, silicon, copper, zinc, and magnesium. Additional strength can be achieved by cold working. ITW Insulation Systems carefully screens all potential aluminum coil suppliers to assure our products have the highest quality, are corrosion resistant, and comply with all relevant standards.

ITW Aluminum Roll Jacketing is typically manufactured using alloys 3105 or 3003 which have very similar composition and performance and are considered interchangeable for use as insulation jacketing. ITW reserves the right to ship whichever alloy is in stock at the time of order placement. One of these two specific alloys or an alternative alloy can be specified by purchaser at time of order placement but this may affect minimum quantity, lead-time, and price.

Composition Differences in Aluminum Alloys (%)

Alloy	Cu	Mn	Mg	Zn
3105	≤ 0.3	0.3-0.8	0.2-0.8	≤ 0.4
3003	0.05-0.2	1-1.5	---	≤ 0.1

COMPLIANCE TO STANDARDS

Both bare and polysurlyn lined Aluminum Roll Jacketing from ITW Insulation Systems comply with the requirements of the ASTM Aluminum Jacketing Material

Standard, C1729, Type I, which includes the strength and chemical composition requirements for compliance to ASTM B209 (Aluminum Alloy Standard).

RECOMMENDED USES

ITW Aluminum Roll Jacketing is recommended for use in all of the following insulation system applications:

- Standard outdoor use on all pipe and vessel insulation systems up to 8 ft outer diameter
- Indoor insulation system applications up to 8 ft outer diameter where increased damage resistance is desired

LIMITATIONS ON USE

ITW Aluminum Roll Jacketing is not appropriate for the following applications:

- For equipment and vessel insulation applications where the outer diameter is larger than 8 ft, ITW deep corrugated aluminum sheets should be used
- For rooftop refrigeration applications, painted Aluminum Jacketing should be considered
- For applications where maximum fire resistance is required, stainless steel jacketing should be used
- For applications where additional resistance to corrosion from the external environment is required, ITW painted aluminum jacketing may be used. Where maximum corrosion resistance is required, ITW stainless steel jacketing (T304 or T316) should be used.

POLYSURLYN MOISTURE BARRIER

Polysurlyn Moisture Barrier (PSMB) is an engineered three layer coextruded film of polyethylene and Surlyn* polymers with a total film thickness of 3 mils (76 µm) that is heat laminated in the factory to the interior surface of Aluminum Roll Jacketing. ITW recommends the use of PSMB on all Aluminum Roll Jacketing to help prevent pitting, crevice, and galvanic corrosion of the interior surface of the metal jacketing and the underlying insulated pipe, tank, or equipment.

Due to its superior performance characteristics, PSMB replaces the old moisture barrier technology of 1 to 3 mil thick polykraft.

PERFORMANCE REQUIREMENTS

ITW Aluminum Roll Jacketing with a 3 mil polysurlyn moisture barrier has been tested at a third party lab for flammability and emittance using the standard industry test methods. The results were:

Property	Value
ASTM E84 Flame Spread Index*	0
ASTM E84 Smoke Developed Index*	5
Outer Surface Emittance	0.1

*Tested with exterior metal surface exposed to the flame

SURFACE FINISHES

Each of the three surface finishes available for ITW Aluminum Roll Jacketing (smooth, stucco embossed, and 3/16" corrugated) has applications where it is recommended. All of these can be supplied with a painted exterior. For more information on this, consult the ITW data sheet on painted Aluminum Roll Jacketing.

Smooth (Plain Mill) Finish

This is a very popular finish and is the "default" for the many end-users/specifiers who prefer the clean look of this finish. This finish sheds rain water the best. However, this smooth surface readily shows damage such as from hail or other physical abuse. It also shows the dirt more than the other finishes due to its smoothness. Lastly, it is highly reflective of sunlight and when located near roadways, some specifiers see this reflection as a possible concern.

Stucco Embossed Finish

This is another popular finish used for ITW Aluminum Roll Jacketing. The stucco-like surface texture hides small imperfections and scratches caused by physical damage during or after installation. This finish also reduces reflectivity while still looking very professional. Lastly, the use of stucco embossed finish provides a small increase to the rigidity and strength of the ITW Aluminum Roll Jacketing.

3/16" Corrugated (Cross-Crimped) Finish

This finish consists of parallel grooves or crimps about 3/16" apart running in the length direction of the pipe. This finish also hides small damage and scratches to the jacketing and reduces sunlight reflection. In addition, the nature of this finish gives the aluminum jacket more ability to expand and contract to adapt to insulation movement caused by pipe or ambient temperature changes. Lastly, the rigidity and strength of 3/16" corrugated finish is substantially increased making it ideal for use as jacketing on large diameter pipe and vessels up to 8 ft diameter. This finish is available in a maximum thickness of 0.024 inches.

RECOMMENDED THICKNESS

ITW recommends that the thickness of Aluminum Roll Jacketing used vary based on the outer diameter of the insulation system per the requirements of ASTM C1729. This recommended thickness is shown in the table below.

Outer Insulation Diameter (in)	Minimum Aluminum Jacket Thickness, inches (mm)	
	Rigid Insulation	Non-Rigid Insulation
≤ 8	0.016 (0.4)	0.016 (0.4)
Over 8 thru 11	0.016 (0.4)	0.020 (0.5)
Over 11 thru 24	0.016 (0.4)	0.024 (0.6)
Over 24 thru 36	0.020 (0.5)	0.032 (0.8)
>36	0.024 (0.6)	0.040 (1.0)