



# uPVC Trunking and Conduit

for Electrical Wiring and Air-conditioning  
Piping Installation



**bizSAFE**

ERT NO.: 2003-1-0590  
00001-2000

PSB TEST  
LIC - 00189



Established since 1988, LITAFLEX PLASTICS Mfg has grown to be one of the region's leading PVC Extruders. LITAFLEX primarily engages in the manufacturing of a wide variety of uPVC Trunking and Conduit Pipe for the laying of electrical cables and air-conditioning piping installation.

## INNOVATION AND CONTINUOUS IMPROVEMENT

Along with the growing market in Singapore and the region, LITAFLEX have also been constantly seeking for continuous improvement. Being an innovative and a dedicated manufacturer, LITAFLEX regularly upgrades its manufacturing facility with the latest extruders and other ancillary equipment to increase its manufacturing efficiency, improve its quality consistency, and offer a wider range of products to its customers.

Our recent backward integration into in-house compounding and mixing of raw material has also taken LITAFLEX to the next level where better quality control, increased cost efficiency, and thus competitive pricing is achieved.



## BEING WHOLLY MANUFACTURED IN SINGAPORE LITAFLEX IS BETTER ABLE TO DELIVER :-

### QUALITY ASSURANCE AND RELIABILITY

With LITAFLEX's manufacturing plant and office wholly located in Singapore, its manufacturing to delivery processes are made more streamlined, information flow is more transparent and frequent quality checks are also made more possible. Trust LITAFLEX's uncompromising attitude with respect to quality. Being awarded the ISO 9001: 2008 Certification and the Product Listing Scheme Certification, LITAFLEX have well defined and stringent quality assurance systems where all employees from top to bottom are responsible for quality & services. Over the years, quality assurance has always been LITAFLEX's strongest selling point, which no doubt, allowed LITAFLEX to stay ahead of the tough competition, as well as significantly increased its worldwide recognition.

### PROMPT DELIVERY AND SERVICE

LITAFLEX's consolidated structure requires lesser lead time for delivery. With a locally based manufacturing plant and warehousing measuring 5,000 square meters, coupled with a fleet of delivery trucks, LITAFLEX possesses sufficient capacity and storage to ensure timely and efficient delivery even at a very short notice. Prompt customer service and support are also made available just a phone call away.





# uPVC CABLE TRUNKING

LITAFLEX uPVC Cable Trunkings are manufactured from a specially formulated high impact Polyvinyl Chloride in strict accordance to comply with the Singapore Standard SS 275: 1999

## INNOVATION AND MODERNIZATION

LITAFLEX has developed this compact trunking for laying long runs of General Cable and Telecommunication Cables along the walls and across ceilings.

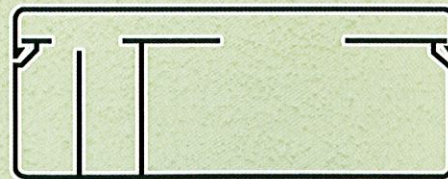
The ingenious 'Snap-on' design, together with a beautiful and compact finish, can certainly protect the Cables from being damaged or dirty. Easy installation is also facilitated.

The vast variety of design and sizes offer a wide range of application in both Domestic and Industrial Facilities.

LITAFLEX has built up an enviable reputation through the years and has faithfully delivered its promises of superior quality. This, no doubt, explains the widespread popularity of LITAFLEX products, which are specified for use in almost every contract in Private Condominiums, HDB Public Housing, Commercial and Industrial Buildings.



Single Compartment Trunking



Multi Compartment Trunking



Carpet Trunking

Singapore Standard SS 275 : 1999

### SINGLE - COMPARTMENT TRUNKING

Product No.	External Dimension Width X Height	Standard Pack	
		Local	Export
TK 016010	16mm X 10mm	50	100
TK 016016	16mm X 16mm	50	50
TK 022013	22mm X 13mm	50	50
TK 025013	25mm X 13mm	50	50
TK 025016	25mm X 16mm	50	50
TK 025025	25mm X 25mm	20	40
TK 032013	32mm X 13mm	50	50
TK 032016	32mm X 16mm	50	50
TK 032018	32mm X 18mm	50	50
TK 038016	38mm X 16mm	20	40
TK 038025	38mm X 25mm	20	40
TK 040013	40mm X 13mm	50	50
TK 040020	40mm X 20mm	20	40
TK 040025	40mm X 25mm	20	40
TK 040040	40mm X 40mm	10	20
TK 050032	50mm X 32mm	10	20
TK 050040	50mm X 40mm	10	20
TK 050050	50mm X 50mm	10	20
TK 075050	75mm X 50mm	10	10
TK 075060	75mm X 60mm	10	10
TK 075075	75mm X 75mm	4	10
TK 085065	85mm X 65mm	4	8
TK 105065	105mm X 65mm	4	8
TK 100050	100mm X 50mm	5	10
TK 100060	100mm X 60mm	5	10
TK 100080	100mm X 80mm	4	8
TK 125055	125mm X 55mm	5	10
TK 125100	125mm X 100mm	2	6
TK 150080	150mm X 80mm	2	6
TK 150100	150mm X 100mm	2	6
TK 200055	200mm X 55mm	2	2
TK 200100	200mm X 100mm	2	2

STANDARD LENGTH : 2M  
 COLOUR : WHITE  
 LARGER SIZE : See Air - Conditioning Trunking

## Single Compartment Trunking

Serves the practical and economical needs of today. Effortless and quick installation is made suited for any application that is related to the wiring and protection of cables. The base can be secured to the wall or ceiling by adhesive or nails, while the cover lid is simply snapped on to the base.

### MULTI - COMPARTMENT TRUNKING

Product No.	No. Of Compartments	External Dimension Width X Height	Standard Pack	
			Local	Export
TM 040020	2	40mm X 20mm	20	40
TM 060020	2	60mm X 20mm	20	40
TM 080032	2	80mm X 32mm	10	10
TM 100040	3	100mm X 40mm	10	10

STANDARD LENGTH : 2M  
 COLOUR : WHITE  
 TM Series : Complete with Retaining Clips

## Multi-Compartment Trunking

Specializes in the segregation of Cables, specifically to ensure safety and convenience during installation. The larger compartment is capable of carrying numerous Electrical Power Cables while the smaller compartment is suited for Telephone and CATV Cables.

A Bridging Retaining Clip is also offered to ease installation in a quicker and neater manner. These inserted clips into the pre-punched slots at the corner of the trunking base, together with the removable 'snap-on' cover lid, indeed gives a very tidy and compact installation.

### CARPET TRUNKING

Product No.	External Dimension Width X Height	Standard Pack Local / Export
TC 080018	80mm X 18mm	10

STANDARD LENGTH : 2M  
 COLOUR : WHITE / BLACK

## Carpet Trunking

Specially designed to protect Cables and Cords from exposed damages while running along the surface floor. It can be secured to the floor by means of adhesive, nails or screw. The superior quality of its material and structure promotes excellent mechanical strength and also, the convenience and safety of the public. For instance, the feasibly and intelligently curved-contour design of the trunking facilitates the pushing of trolleys across the running cables on the surface floor and eliminates walking obstacles caused by running cables.



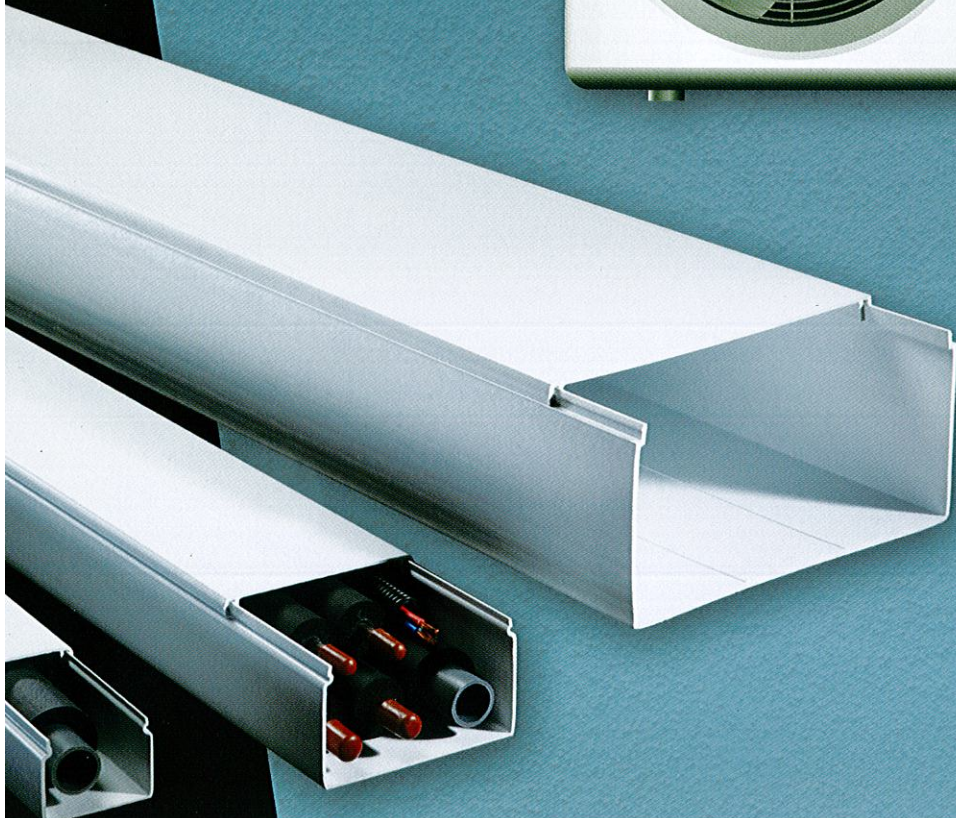
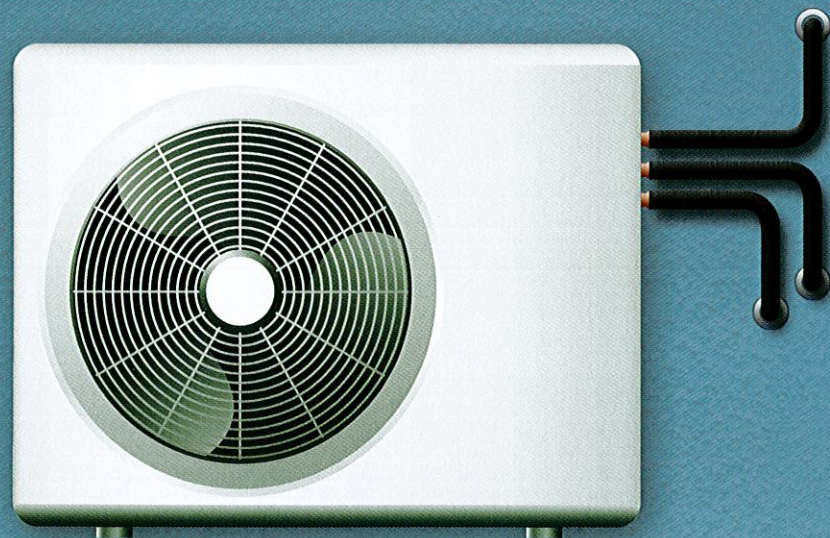
# uPVC AIR - CON TRUNKING

Manufactured from an extra High Impact grade of uPVC, LITAFLEX AIR-CONDITIONING TRUNKING is Fire Resistant rated and complies with the Singapore Standard SS 275: 1999.

To facilitate distribution from the outdoor Air-Conditioning Condensing Unit to the Fan Coil Unit mounted on the wall of the living room, LITAFLEX has intelligently design this non-corrosive Trunking system to secure Electrical Cables, Insulation Tubes containing Copper Tubes and uPVC Drain Pipes.

LITAFLEX's latest NEW design on the Base and 'snap-on' lids provide a stronger grip, easy installation and also the removal for maintenance. The unique characteristics of its clean and smooth curvy edges, strength and durability allow it to be used even on rough wall surfaces and ceilings.

What is more, LITAFLEX's air-conditioning trunking is made of high weather resistant, which ensures a lasting appearance of beauty.



Singapore Standard SS 275 : 1999

## uPVC AIR - CONDITIONING TRUNKING

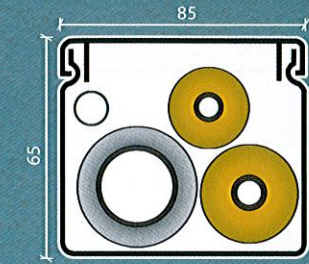
Product No.	External Dimension Width X Height	Standard Pack	
		Local	Export
TK 040025	40mm X 25mm	10	20
TK 040040	40mm X 40mm	10	20
TK 050032	50mm X 32mm	10	20
TK 050040	50mm X 40mm	10	20
TK 050050	50mm X 50mm	10	20
TK 075050	75mm X 50mm	5	10
TK 075060	75mm X 60mm	5	10
TK 075075	75mm X 75mm	4	10
TK 085065	85mm X 65mm	4	8
TK 105065	105mm X 65mm	4	8
TK 100050	100mm X 50mm	5	10
TK 100060	100mm X 60mm	5	10
TK 100080	100mm X 80mm	4	8
TK 100100	100mm X 100mm	2	6
TK 125055	125mm X 55mm	5	10
TK 125100	125mm X 100mm	2	6
TK 150080	150mm X 80mm	2	6
TK 150100	150mm X 100mm	2	6
TK 200055	200mm X 55mm	2	2
TK 200100	200mm X 100mm	2	2

STANDARD LENGTH : 2.44M

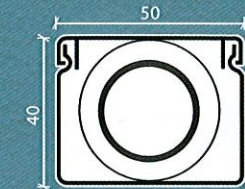
COLOUR : WHITE

Smooth finishing to match interior and exterior of buildings

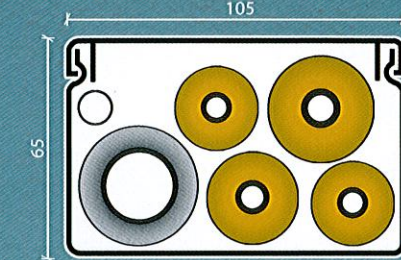
### Installation Capacity of Multi Split Unit Air-Conditioning System



I Condensing Unit to I Fan Coil



Insulated Drain Pipe



I Condensing Unit to 2 Fan Coil

### • Test Specifications for Cable and Air-Conditioning Trunking Made of Insulating Material

Clause	Test Required
<u>Mechanical Properties</u>	
Cable Supporting Test for surface mounting	
Temperature	60 ± 2°C
Duration	2 hr
Distortion (Max)	10%
<u>Impact Test</u>	
Precondition	60 ± 2°C
Duration	240hr
Test Temperature	15 °C
Mass of Hammer	2 kg
Height of Impact	100 mm
<u>Cover Retention Test</u>	
Mass attached to Cover	2 kg
Duration of Test	60 sec

Clause	Test Required
<u>Resistance to Heat</u>	
Testing Temperature	60 ± 2°C
Applied force of Ball Pressure	20 N
Duration of Test	1 hr
Diameter of Impression	< 2 mm
<u>Resistance to Flame Propagation</u>	
Flame Test	Does not ignite or flames. Self extinguished within 30s after removal of flame.
<u>Insulating Characteristics</u>	
Electric Insulating Strength Test	
Applied Voltage	2500 V
Duration of Electrification	1 min
<u>Insulation Resistance test</u>	
Applied Voltage	500 V dc
Duration of Electrification	1 min



# uPVC CORRUGATED CONDUIT & FITTINGS

LITAFLEX is the first manufacturer to introduce Corrugated Conduit in Singapore. Excellent Thermoplastics material specially formulated to meet the requirement of IEC 61386-22 : 2002

The unique design of corrugated construction provides and offers considerable flexibility for laying long runs of cables buried under the concrete without excessive joints. It is extremely suitable for surface installation and lighting fixtures, where cables are run from concrete ceiling down to false ceiling.

In today's worldwide advance telecommunication industries, LITAFLEX Corrugated Conduit can be extruded with a Pre-installed pulling tape made of Nylon meant for the drawing of Cables. It is widely used as a Sub-Duct for the protection of Optical-fiber Cables.

LITAFLEX also supplies a wide range of fittings and accessories to complement its Corrugated Conduits and hence provide a continuity installation.

- Flame Retardant
- Medium Duty

PVC CORRUGATED CONDUITS				
Product No.	Diameter		Standard	Packing
	Outer	Inner		
FC 16PVC	16mm	11.0mm	50M	5
FC 20PVC	20mm	14.6mm	50M	5
FC 25PVC	25mm	19.0mm	50M	5
FC 32PVC	32mm	24.8mm	25M	5
FC 40PVC	40mm	32.0mm	25M	3
FC 50PVC	50mm	41.2mm	25M	3

COLOUR : BLACK, WHITE, GREY, ORANGE

## PRODUCT FEATURES

- > Flame Retardant - Self-extinguishing in event of fire
- > Temperature Resistance - From -5°C to 60°C
- > Excellent resistance to most acids and chemicals
- > Has compression strength
- > Available in long length, thus reducing the number of connections
- > Lightweight, flexible and easy to install
- > Can simply be cut by knife or cutter
- > Do not kink

## POLYPROPYLENE CORRUGATED SUB-DUCT (Complete with pre-installed Nylon Pulling Cord)

Product No.	Diameter		Standard	Packing
	Outer	Inner		
FC 32SD	32mm	24.8mm	500M	2
FC 40SD	40mm	32mm	500M	2

COLOUR : BLACK

### Corrugated/Plain Connector



Product No.	Size	Packing
FCF 20CP	20mm	100
FCF 25CP	25mm	100

### Corrugated Angle Adaptor



Product No.	Size	Packing
FCF 20AA	20mm	100
FCF 25AA	25mm	100

### Corrugated Adaptor



Product No.	Size	Packing
FCF 20CA	20mm	100
FCF 25CA	25mm	100
FCF 32CA	32mm	20
FCF 40CA	40mm	20

### Corrugated Connector



Product No.	Size	Packing
FCF 20CC	20mm	100
FCF 25CC	25mm	100

### Corrugated Gland



Product No.	Size	Packing
FCF 16CG	16mm	100
FCF 20CG	20mm	100
FCF 25CG	25mm	100
FCF 32CG	32mm	50

## Physical Properties of LITAFLEX Conduit Material

	Unit	Thermoplastics
Density	g/ cm <sup>3</sup>	0.9
Yield Strength	kg/ cm <sup>2</sup>	280
Ultimate Strength	kg/ cm <sup>2</sup>	400
Ultimate Elongation	%	800
Flexural Modulus	kg/ cm <sup>2</sup>	12000

## Physical Properties of LITAFLEX Conduit Material

	Unit	Thermoplastics
Notched (-20°C)	Kg-cm/cm	5
Rockwell Hardness	R scale	86
HDT (46kgf/cm <sup>2</sup> )	°C	112
Shrinkage MD/TD	1/1000	15/14
Water Absorption	-	negligible



# uPVC CONDUIT PIPE

LITAFLEX uPVC Conduit Pipes and uPVC Conduit Fittings are produced from a specially formulated compound, Polyvinyl Chloride. They are manufactured to comply with the British Standard BS EN 61386-21: 2004 and BS 4607 Part 5 respectively.

Being widely used for surface installation, and also particularly for wiring systems embedded in concrete slabs, LITAFLEX worked hand in hand with creative ideas and solutions to manufacture Conduits and wide range of Fittings and Accessories that are tough enough to provide excellent protection of Electrical Cable Wiring Systems even under arduous conditions. A reduction in the installation time is also facilitated.

## British Standard BS EN 61386-21:2004

uPVC CONDUITS PIPE					
Nominal Size		Wall Thickness		Packing	
Product No.	Outer Dimension	Medium Gauge	Heavy Gauge	Local	Export
CP 20	20mm	1.6	1.8	20	50
CP 25	25mm	1.7	1.9	20	40
CP 32	32mm	2.0	2.2	10	10
CP 40	40mm	2.2	2.5	10	10
CP 50	50mm	2.5	2.8	5	5

Classification : Medium Gauge Class 332112  
 : Heavy Gauge Class 442112  
 Standard Length : 2.9 Meters  
 Wall Thickness Tolerance :  $\pm 0.1$ mm  
 Colour : White/Black



## ADVANTAGE OF LITAFLEX uPVC CONDUIT SYSTEM

- **Lightweight**

uPVC is approximately 1/6 the weight of equivalent galvanized steel system, making it easier to transport, install and handle.

- **Time saving installation**

It is easy to cut and push fit to accessories. No treading and special tools are required to cut and joint. The conduit cuts easily with a sharp handsaw or PVC cutter and is securely joined by solvent cement.

- **Cold bending**

Forms a 90° angle with just the aid of a bending spring.

- **Safety**

uPVC is a non-conductive material, producing a fully insulated system.

- **Corrosion resistant**

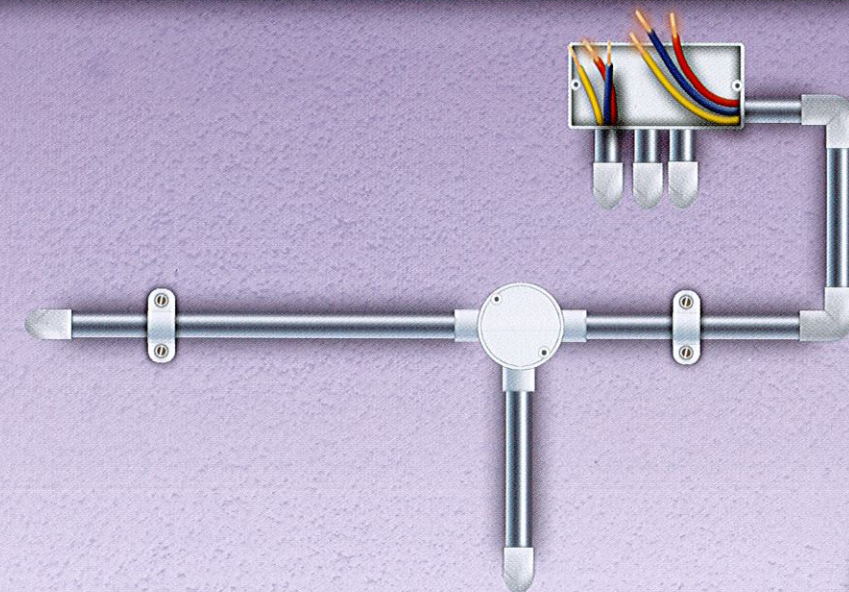
Rigid, non-conducting PVC conduit is immune to almost all types of corrosives such as chemical, inorganic acids, biological, or electrochemical encounters in either underground or aboveground systems.

- **Cost effectiveness**

uPVC Conduit is less expensive compared to steel. Further savings on labour cost can also be generated due to a faster installation time.

### Physical Properties of Conduit Material

	Unit	PVC
Specific Gravity	g/cm <sup>3</sup>	1.35
Water Absorption	-	negligible
Module of Elasticity	kg/cm <sup>2</sup>	30,000
Softening Temperature	°C	75-85
Forming Temperature	°C	120
Insulating Temperature	Megohm	2.8 X 10 <sup>5</sup>
Elongation at Tear	%	30





# uPVC DRAIN PIPE & FITTING

## For Air-Conditioning Drainage Insulation

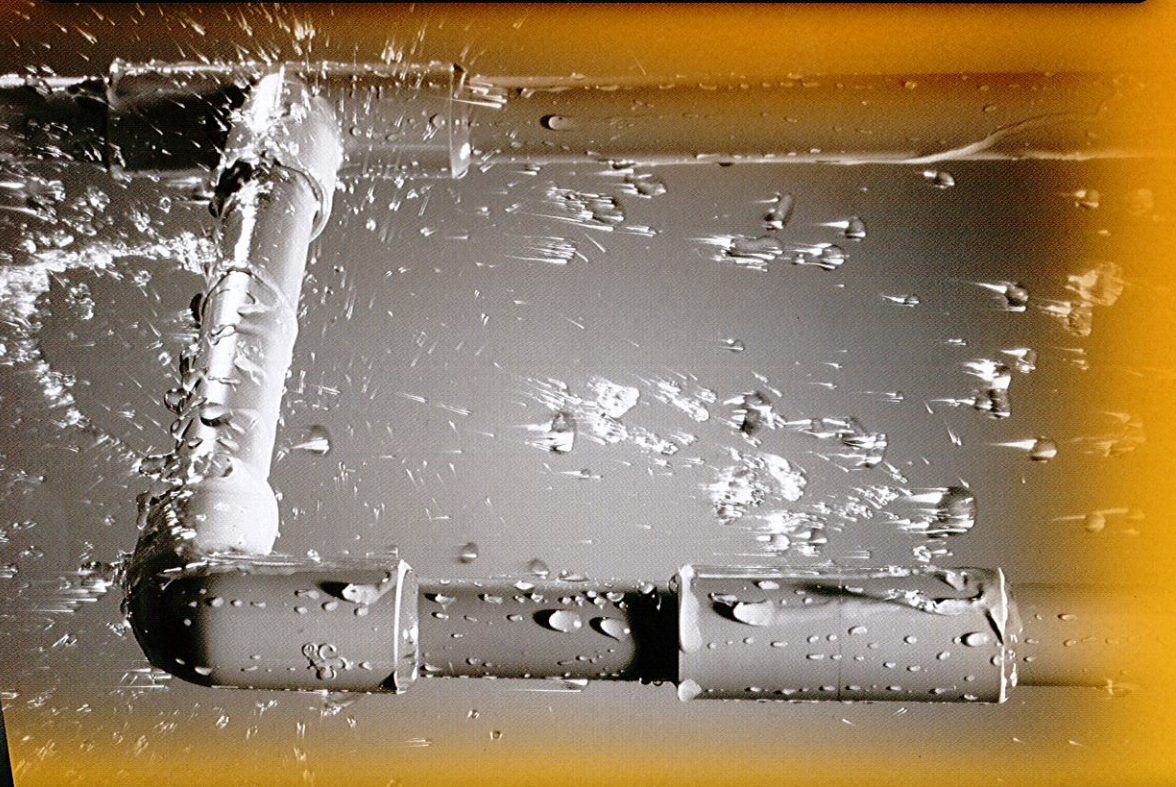
LITAFLEX's uPVC DRAIN PIPE are manufactured strictly in accordance to the Japanese Standard JIS 6741: 1999.

Constructed from High Impact Polyvinyl Chloride, which is self-extinguishing, and together with a comprehensive range of fittings, LITAFLEX Drain Pipe System is able to efficiently serve the drainage purpose of Air-Con water discharge, which are extremely corrosive.

Its light weight material and smooth bore minimizes the deposit build-up in the inner wall. By simply using the solvent cement welding method for the Fittings, installation is made easier, cost is reduced and time is saved.

Japanese Industrial Standard JIS K 6741 : 1999 Class VU/VP

Product No.	Normal Size		Outside Diameter mm	Wall Thickness		Packing Local LG
	mm	inches		Class VU/AE mm	Class VP/AW mm	
DP 13	13	3/8	18	1.8	2.2	10
DP 16	16	1/2	22	1.8	2.7	10
DP 20	20	3/4	26	1.8	2.7	10
DP 25	25	1	32	1.8	3.1	10
DP 30	30	1 - 1/4	38	1.8	3.1	10
DP 40	40	1 - 1/2	48	1.8	3.6	10

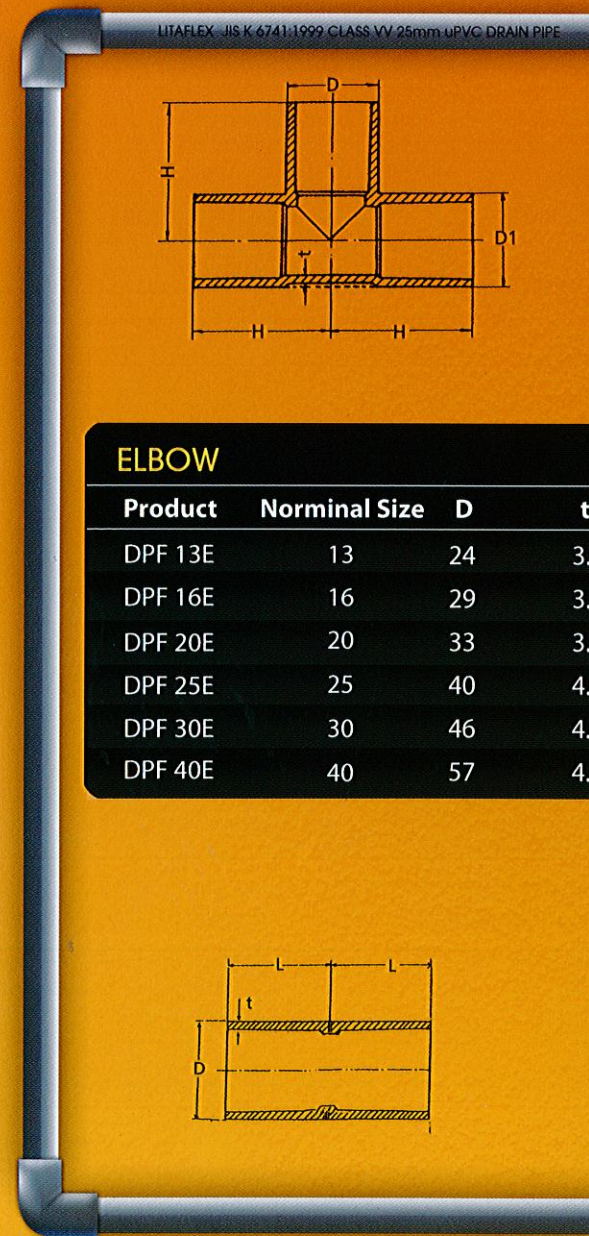


## FEATURES

- 2.9 Meter length convenient for transportation
- Cooling Grey Colour to match Buildings
- Choice of Non-Pressure and Pressure Pipes



## uPVC PIPE FITTINGS

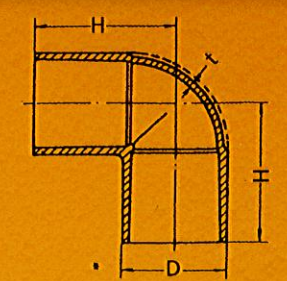


### TEE JOINT

Product	Normal Size	D	t	H	D1	H1	Packing
DPF 13T	13	24	3.0	36	24	36	660
DPF 16T	16	29	3.5	43	29	43	400
DPF 20T	20	33	3.5	50	33	50	260
DPF 25T	25	40	4.0	58	40	58	180
DPF 30T	30	46	5.0	65	46	65	100
DPF 40T	40	57	4.5	82	57	82	100

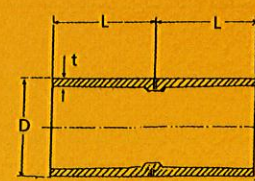
### ELBOW

Product	Normal Size	D	t	H	Packing
DPF 13E	13	24	3.0	36	1000
DPF 16E	16	29	3.5	43	600
DPF 20E	20	33	3.5	50	400
DPF 25E	25	40	4.0	58	300
DPF 30E	30	46	4.0	65	100
DPF 40E	40	57	4.5	82	100



### SOCKET

Product	Normal Size	D	t	L	Packing
DPF 13S	13	24	3.0	29.0	1300
DPF 16S	16	29	3.5	33.5	800
DPF 20S	20	33	3.5	38.5	540
DPF 25S	25	40	4.0	44.0	300
DPF 30S	30	46	4.0	48.0	100
DPF 40S	40	57	4.5	59.5	100





# uPVC CABLE COVER PLATE

Excavation and the digging of trenches could post danger and hazard to workers. It can also cause severe and costly damages to underground Electrical Cables, Telecommunication Optical Fiber Cable Networks and Gas Distribution System, Industrial and also the Domestic Water Piping System.

These have led to the development of the Warning Marker Plate. Manufactured from Polyvinyl Chloride, LITAFLEX uPVC Cable Cover Plate possesses high impact strength and complies with the International Standard.

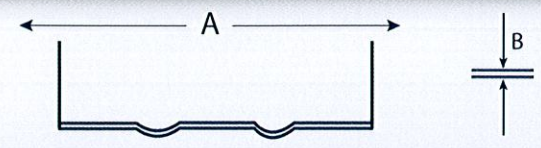
Its superior quality deem excellent for the protection of Cables and Pipes installed underground. For example, the wide range of bright, luminous colours with embosses raised lettering, will certainly enable easy identification, and thereby effectively signal caution when digging trenches. In addition, the ingenious design of the Interlocking Device also allows continuous connection.

**CAUTION MARKER PLATE**  
for safety and prevention of damage to properties



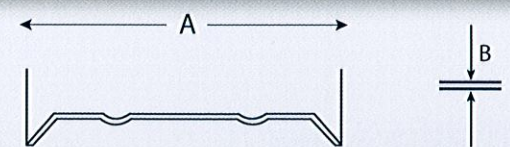
FLAT PLATE				
Product No.	Dimension (mm)		Pallet	
	A	B	PCS	M3
PF 120	120	1.8	2000	0.75
PF 150	150	2.0	2000	1.00
PF 200	200	2.0	1600	1.20

Standard Length : 1 Meter  
Standard Colour : Yellow / Black



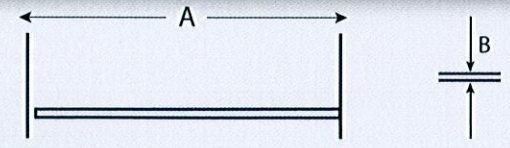
ANGLE PLATE				
Product No.	Dimension (mm)		Pallet	
	A	B	PCS	M3
PA 120	120	2.0	2000	0.90
PA 150	150	2.0	2000	1.00
PA 172	172	2.0	2000	1.69
PA 272	272	2.0	1000	1.11

Standard Length : 1 Meter  
Standard Colour : Yellow / Black



FLAT SMOOTH PLATE				
Product No.	Dimension (mm)		Pallet	
	A	B	Roll	M3
PS 200	200	2.0	25	1.64

Standard Length : 50 Meter Coil  
Standard Colour : Yellow / Orange



## CUSTOM-MADE COVER PLATE COLOURS AND EMBOSSED TEXT



Standard Embossing  
**DANGER ⚡ LT CABLE**  
**DANGER ⚡ HT CABLE**

## TEST SPECIFICATION OF uPVC CABLE COVER PLATE

Characteristics	Result
ASTM D1525 : 2007 Standard Test Method for Vicat Softening Temperature of Plastics	
Load	(1kgf)
Heat Transfer Medium	(Silicone Oil)
Heating Rate (50 ± 5° C/hr)	
Vicat Softening Point, average	88 C
ONORM E6530 (CLAUSE 7.3) : 1985 Impact Strength (Drop Hammer Test)	
Maximum Depth of Penetration of the 10kg drop Hammer	< 100mm
Observation	: No crack

Characteristics	Result
ONORM E6530 (Clause 7.4) : 1985 Tensile Load of the longitudinal Connection Crosshead Speed (50mm/ min)	
Average Tensile Load prior to ageing	: 1056N
Average Tensile Load after ageing	: 1071N
Change in Tensile Load	: 1.4%
Conditioning of Test Specimen ASTM D3045 : 1997 Practice for Heat Ageing of Plastics without Load Oven Temperature (70 ± 2°C) Duration	(168 hr)





**Our Commitment**  
**Quality Assurance**  
**& Customer Satisfaction**



CERT NO.:2003-1-0590  
ISO 9001 : 2000



PSB TEST  
LIC : 00189