



UPMC



الشركة المتحدة للصناعات البلاستيكية ش.م.م.
United Plastic Manufacturing Co. LLC



Manufacturer of uPVC, Electrical Conduit and PPR Pipes & Fittings

CONTENTS

| | Page | | Page |
|--|------|---|------|
| 1. Characteristics | | | |
| 1.1 General | 4 | 3.3.1.1 Solvent Cement Joint | 12 |
| 1.2 Physical Properties Of UPMC uPVC Raw Material of Pipes | 4 | 3.3.1.2 Ring Seal jointing | 13 |
| 1.3 Physical Properties Of UPMC uPVC Raw Material of Fittings | 4 | 3.3.2 Chamfering of UPMC uPVC pipes | 15 |
| 2. Technical Data for UPMC uPVC and Electrical Conduit products | 4 | 4. Features of UPMC uPVC System | 15 |
| 3. UPMC uPVC Product Range | | 5. UPMC uPVC Electrical Conduit System | |
| 3.1 Part A - PIPES | | 5.1 UPMC Electrical Conduit Pipes | 16 |
| 3.1.1 UPMC uPVC Waste Pipe | 7 | 5.1.1 Bending of UPMC uPVC Pipes | 17 |
| 3.1.2 UPMC uPVC Pipe for Soil and Ventilation (Above Ground Application) | 7 | 5.2 UPMC Electrical Conduit Fittings | 18 |
| 3.1.3 UPMC uPVC Drainage and Sewerages System | 8 | 5.3 Features of UPMC uPVC Conduit system | 24 |
| 3.1.4 UPMC uPVC Internal standards of pipes | 8 | 6. Transport and Handling | 24 |
| 3.2 Part B - FITTINGS | 8 | 7. Storage | 25 |
| 3.3 UPMC uPVC Technical guidelines | 10 | 8. Our Quality | 26 |
| 3.3.1 UPMC uPVC Jointing Methods | 12 | 9. Uniqueness and Superiority of UPMC | 27 |
| | | 10. Plumbing Materials Comparison | 28 |
| | | 11. Certificates | 29 |



UPMC

الشركة المتحدة للصناعات البلاستيكية ش.م.م.
United Plastic Manufacturing Co. L.L.C

Company Profile

United Plastic Manufacturing Company, an ISO 9001:2008 certified company, founded in 2006, is the manufacturers of uPVC pipes & fittings, and PPR pipes and fittings under the brand name "UPMC".

Mission & Vision

UPMC is committed to cater superior quality products, timely delivery, cost-effective and value-for-money products to its customers. UPMC provides best ever services to the clients. (Pre-sales as well as post-sales – as committed).

For the management of UPMC, customer satisfaction is the prime objective and we all are committed to continuously improve our products and services through the latest technology, information systems and diligent implementation of quality management systems.



Introduction

Unplasticized Polyvinyl Chloride or uPVC is one of the most widely used thermoplastic materials, due to its flexibility of usage and competitive price.

UPMC provides a complete system of uPvc pipes and fittings for waste, soil, ventilation, drainage, sewerages and electrical conduit.

Due to its flexibility of usage and competitive price, UPMC uPVC widely used in afore-mentioned application.

1. Characteristics

1.1 General

The basic polymer is mixed with additives such as color, filler, lubricants and stabilizers in accordance with a recipe determined by the properties of the finished products.

- The mix of compound is processed by extruders or injection molding machines to be converted into the end products.

1.2 Physical Properties Of UPMC uPVC Raw Material of Pipes

| Properties | Unit | Value | Test Method |
|--|-------------------|-------------|-----------------|
| K-VALUE | – | 67.0 | DIN 53726 |
| Apparent Bulk Density | kg/m ³ | 570 | ASTM-D 1895 |
| Particle Size Distribution • Retained on mesh 60 (250 µm) • Passing through mesh 200 (74 µm) | % max % max | 15.0 4.0 | SABIC (PVC 003) |
| Volatile Content | % max | 0.3 | ASTM-D 3030 |

Table (1)

1.3 Physical Properties Of UPMC uPVC Raw Material of Fittings

| Properties | Unit | Value | Test Method |
|--|-------------------|-------------|-----------------|
| K-VALUE | – | 59.0 | DIN 53726 |
| Apparent Bulk Density | kg/m ³ | 580 | ASTM-D 1895 |
| Particle Size Distribution • Retained on mesh 60 (250 µm) • Passing through mesh 200 (74 µm) | % max % max | 5.0 10.0 | SABIC (PVC 003) |
| Volatile Content | % max | 0.3 | ASTM-D 3030 |

Table (2)

2. Technical Data for UPMC uPVC and Conduit products

Manufacturing and Testing Standards

UPMC uPVC pipes are manufactured in accordance to Omani & Gulf Organization standards such as:

GSO 898/1997, GSO 1127/2002 & GSO 33/2007.



Also it is manufactured as per international standards for different types of usage mainly British and European standards (BS EN 1401, BS EN 1329, BS5255, BS 4514, BS 4660 BS 4607 & BS 6099).

| Properties | Unit | Values | Standard |
|------------------------------|-------------|-----------------------------------|------------------------|
| Flammability | not support | - | ASTM D 635 |
| | | Burning rate = Self Extinguishing | |
| Resistance of burning | Sec. | < 30 | BS 4607 PART 2.70 |
| Thermal Conductivity | W/m-k | 0.147 | ASTM D 177 |
| Softening PT. (VSP 5kgf) | °C | 82 | BS 2782 - 1976 |
| Elongation at Break | % | > 80 | ISO R 527 |
| Resistance to Heat | mm | < 2 | BS 4607 PART 2:70 |
| Compressive Strength | Kp/cm | 668 | BS 4607 PART 2:70 |
| Resist to Sulphuric Acid | .g/45cm | -0.13 +3.19 | BS 3506 |
| Resist to Methylene Chloride | % | <3 | ISO 2508/81 |
| Resist. Water Absorption | mg/cm | <2.0 | ISO 2508/81 & DIN 8061 |
| Surface Resistance | .ohm | 1012 | DIN 53482 |
| Dielectric strength | V/mil | 1400 | BS 4607 |
| Insulation Resistance | M. ohm | 1.1x106 | BS 4607 |

Table (3)



UPMC

UPMC uPVC PIPES



3. UPMC uPVC Product Range

3.1 Part A (Pipes)

3.1.1 UPMC pipe uPVC Waste as per British standard BS 5255 & GSO 898/1997

| Nominal Size | | Out Side Diameter OD (mm) | | Wall Thickness e (mm) | |
|--------------|------|---------------------------|-------|-----------------------|------------------|
| Inch | (mm) | Min | Max | e _{min} | e _{max} |
| 1 ¼" | 32 | 36.15 | 36.45 | 1.8 | 2.2 |
| 1 ½" | 40 | 42.75 | 43.05 | 1.9 | 2.3 |
| 2" | 50 | 55.75 | 56.05 | 2.0 | 2.4 |

Table (4)

Color: White & Light Gray

3.1.2 UPMC uPVC Pipe for Soil and Ventilation (Above Ground Application) as per BS 4514 GSO 898/1997

| Nominal Size | | Out Side Diameter OD (mm) | | Wall Thickness e (mm) | |
|--------------|-----|---------------------------|-------|-----------------------|------------------|
| Inch | mm | Min | Max | e _{min} | e _{max} |
| 3 | 82 | 82.4 | 82.8 | 3.2 | 3.8 |
| 4 | 110 | 110.4 | 110.4 | 3.2 | 3.8 |

Table (5)

Color: White & Light Gray



3.1.3 UPMC uPVC Drainage and Sewerages System

UPMC Drainage & Sewerages are manufactured according the updated British standard (BS EN 1401) which it is the last version of BS-4660

BS EN 1401 (BS-4660)

| Nominal Size | | OD (mm) | | Wall Thickness (mm) | |
|--------------|-----|---------|-------|---------------------|------------------|
| Inch | mm | Max | Min | e _{min} | e _{max} |
| 4 | 110 | 110.0 | 110.3 | 3.2 | 3.8 |

Table (6)

Color: Golden Brown



3.1.4 UPMC uPVC Internal standard of Pipes

| Nominal Size | | Wall Thickness e (mm) |
|--------------|-----|-----------------------|
| Inch | mm | |
| 3 | 82 | 1.8 |
| | | 2.2 |
| 4 | 110 | 1.8 |
| | | 2.2 |

Table (7)

UPMC uPVC pipes can be manufactured as per customers' requirements.

Notes:

- UPMC uPVC pipes are available in two welding option:
 - Solvent Welding type.
 - Rubber Ring (Push Fit): from sizes 56mm above.
- Standard length of uPVC pipes are 4, 5.8 & 6.0 meter.
- Chamfering of edges of pipes (15°), Spigot and plain pipes are available.



UPMC

UPMC uPVC FITTINGS

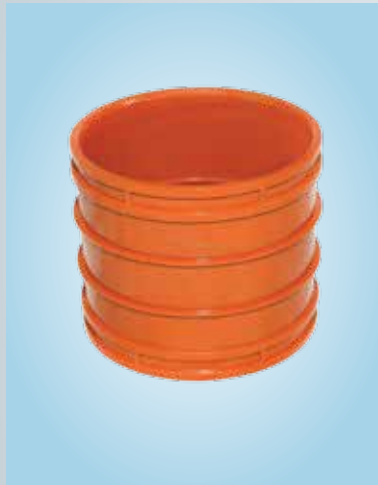


3.2 Part B (Fittings)

UPMC uPVC Fittings (Drainage, Waste, Soil & Ventilation)
 Products complies with BS-4660 & GSO 898/1997 Standard

Socket

Standard: BS EN 1329 BD



| Size | | Qty (Pcs/ Carton) |
|------|------|----------------------|
| mm | Inch | |
| 40 | 1¼ | 126 |
| 50 | 1½ | 80 |
| 63 | 2 | 40 |
| 90 | 3 | 96 |
| 110 | 4 | 60 |
| 160 | 6 | 24 |

Elbow 45°

Standard: BS EN 1329 BD



| Size | | Qty (Pcs/ Carton) |
|------|------|----------------------|
| mm | Inch | |
| 40 | 1¼ | 80 |
| 50 | 1½ | 50 |
| 63 | 2 | |
| 90 | 3 | 70 |
| 110 | 4 | |
| 160 | 6 | 16 |

Elbow 92°

Standard: BS EN 1401 UD



| Size | | Qty (Pcs/ Carton) |
|------|------|----------------------|
| mm | Inch | |
| 40 | 1¼ | 50 |
| 50 | 1½ | 40 |
| 63 | 2 | 160 |
| 90 | 3 | 60 |
| 110 | 4 | 30 |
| 160 | 6 | 10 |

Tee 92°

Standard: BS EN 1329

| Size | | Qty (Pcs/ Carton) |
|------|------|----------------------|
| mm | Inch | |
| 40 | 1¼ | 36 |
| 50 | 1½ | 170 |
| 63 | 2 | 100 |
| 90 | 3 | 32 |
| 110 | 4 | 20 |
| 160 | 6 | |

Y Door with Cap

Standard: BS EN 1329 BD

| Size | | Qty (Pcs/ Carton) |
|------|------|----------------------|
| mm | Inch | |
| 110 | 4 | 12 |

Y 135°

Standard: BS EN 1329 BD

| Size | | Qty (Pcs/ Carton) |
|------|------|----------------------|
| mm | Inch | |
| 40 | 1¼ | 35 |
| 50 | 1½ | 192 |
| 63 | 2 | 88 |
| 90 | 3 | 24 |
| 110 | 4 | 16 |
| 160 | 6 | |

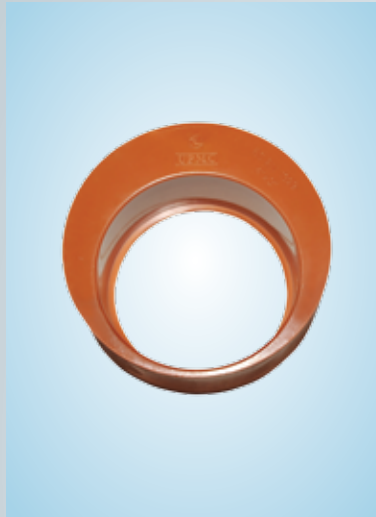
T Door with Cap

Standard: BS EN 1329 BD

| Size | | Qty (Pcs/ Carton) |
|------|------|----------------------|
| mm | Inch | |
| 110 | 4 | 17 |

Reducing Bush

Standard: BS EN 1329



| | Size | | Qty (Pcs/ Carton) |
|--|-----------|---------|----------------------|
| | mm | Inch | |
| | 50 × 40 | 1½ × 1¼ | 200 |
| | 63 × 40 | 2 × 1¼ | 100 |
| | 63 × 50 | 2 × 1½ | 100 |
| | 90 × 63 | 3 × 2 | 315 |
| | 110 × 63 | 4 × 2 | 140 |
| | 110 × 90 | 4 × 3 | 140 |
| | 160 × 90 | 6 × 3 | 152 |
| | 160 × 110 | 6 × 4 | 48 |

Vent Cowl

Standard: BS EN 1329



| | Size | | Qty (Pcs/ Carton) |
|--|------|------|----------------------|
| | mm | Inch | |
| | 90 | 3 | |
| | 110 | 4 | |

P Trap (Full Set)

Standard: BS EN 1401UD



| | Size | | Qty (Pcs/ Carton) |
|--|------|------|----------------------|
| | mm | Inch | |
| | 110 | 4 | 12 |

3.3 UPMC uPVC Technical Guidelines

3.3.1 UPMC uPVC Jointing Methods

One of the major benefits of uPVC pipes is the ability to use one of the two jointing methods below. This gives a great deal of flexibility in allowing for varying installation conditions and the skill and equipment of the installers.

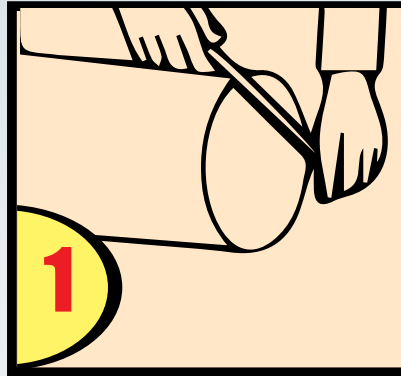
Two majors method of jointing are:

1. Solvent Cement.
2. Ring Seal.

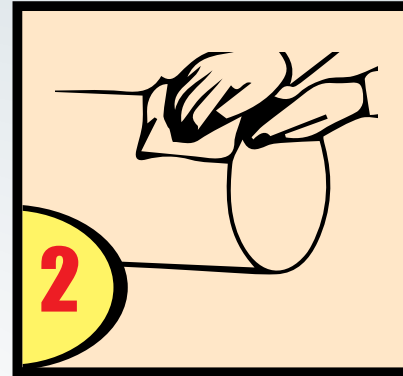
3.3.1.1 Solvent Cement Joint

Jointing procedure

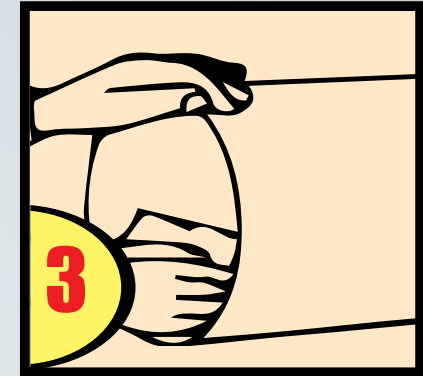
To ensure a good joint the following procedure should be adhered to, also refer to the illustrations in below figures:



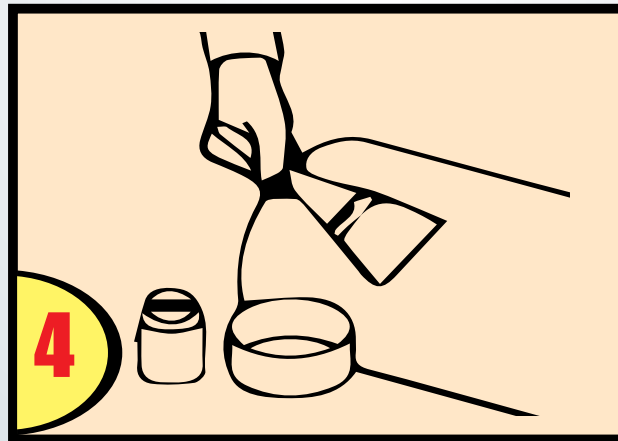
Cut pipe end square chamfer to minimum 15° deburr and smooth surface.



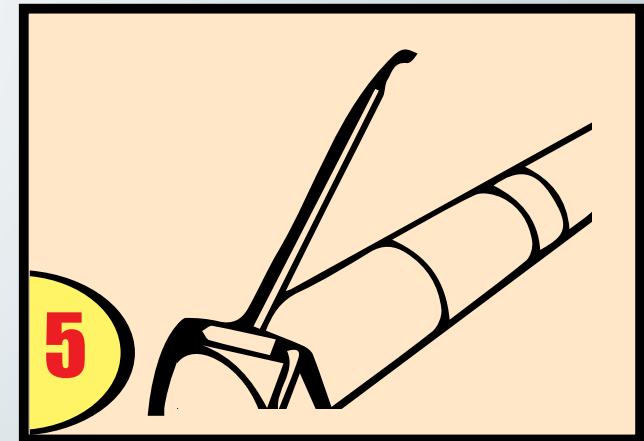
Clean external surface of spigot and internal surface of socket using cleaning fluid



Care should be taken to keep both mating surfaces clean



Apply correct solvent weld cement



Joint pipes, using pipe jack if necessary in a single fluid movement



Extreme conditions

Cold – Under extremely cold conditions, special care must be taken to ensure excess solvent cement is not allowed to enter into the pipeline as this could result in solvent cracking of the pipe.

Hot – In hot weather, particularly when solvent cementing long lengths, the pipe should be well ventilated.

3.3.1.2 Ring Seal Jointing

The assembly procedure for the uPVC pipe mechanical Joint System is outlined below, before making any joint inspects all fittings

Joint Instructions



1 Clean the inside of socket. Remove all traces of mud, dirt, grease, gravel and clean elastomeric sealing ring



2

Form the ring into a heart shape by pinching a portion of ring from inside. Insert into the socket and release to seat into the groove. Factory supplied pipes are provided with a 15° chamfer. Mark the insertion depth on spigot portion of pipe. Clean and apply lubricant to insertion depth before pushing into the socket.



3

If pipe need to be cut, it should be cut perpendicular to the axis of the pipe. Then it should be chamfered properly.



4

Align the socket and spigot correctly in the horizontal and vertical planes (before insertion, ensure that no sand or dirt adheres to the lubricated surface of the pipe). Care should be taken that the spigot end is inserted in the socket at the correct angle.



5

Push the spigot into the socket until it reaches the depth of entry mark, do not over insert. This must be done manually. a portion of ring from inside. Insert into the socket and release to seat into the groove.

and lengths of pipe for transit damage.

3.3.2 Chamfering of UPMC uPVC Pipes

The outside edge of the pipe end should be chamfered to approximately 15° so that at least 50% of the wall thickness is removed at the leading edge. A chamfer of this nature is essential for both solvent cement and rubber ring seal joints.



4. Features of UPMC uPVC System

Wide Product Range: offers a complete system to different types of projects.

High Chemical Resistance: can be used safely to transport various types of liquids with aggressive compositions.

Resistance Up To 60°C: gives the possibility to use not only in residential buildings but also in different types of installations such as laboratories factories and other industrial projects.

Easy To Handle And Install: push-fit jointing system saves time and minimizes labor costs

Value for Money: efficiently adopted economies of scale's competitiveness are reflected to our client.

Corrosion Free: unlike other

metal sewerage systems UPMC uPVC systems do not react with the metal ions inside the transported liquids.

Smooth Internal Surface: even the stickiest wastes are discharged very fast due to smooth internal surface of UPMC uPVC systems.

Sound Proof: the wall thickness of UPMC uPVC systems is set to their upper limit allowed by DIN standards; this feature, which minimizes the sound transmission, ensures quiet environments to the householders.

Long Service Life: UPMC uPVC systems can be used safely for decades without any maintenance.

Due to their highly UV and impact resistant structure, UPMC uPVC systems do not require maintenance for many years even for outdoor installations.



UPMC

UPMC uPVC ELECTRICAL CONDUIT SYSTEM



5. UPMC uPVC Electrical Conduit System

5.1 UPMC uPVC Electrical Conduit Pipes (BS 6099) & GSO 33/2007

| Nominal Size (mm) | Min Wall thickness (mm) | | | Inside Diameter ID mm | | |
|-------------------|-------------------------|--------|-------|-----------------------|--------|-------|
| | Light | Medium | Heavy | Light | Medium | Heavy |
| 16 | 1.15 | 1.5 | 1.9 | 13.7 | 13.0 | 12.2 |
| 19 | 1.2 | 1.4 | 2.0 | 16.6 | 16.2 | 15.0 |
| 20 | 1.3 | 1.5 | 2.1 | 17.4 | 17.0 | 15.8 |
| 25 | 1.4 | 1.8 | 2.2 | 22.2 | 21.4 | 20.6 |
| 32 | 1.9 | 2.1 | 2.7 | 28.2 | 27.8 | 26.6 |
| 38 | 1.8 | 2.45 | 2.75 | 34.4 | 33.1 | 32.5 |
| 50 | 2.45 | 2.85 | 3.4 | 45.1 | 44.3 | 43.2 |

Table (8)

- Color: Black & white
- Solvent Cement can be used for jointing.
- Standard length 2.9m & 3.0m.

Note:

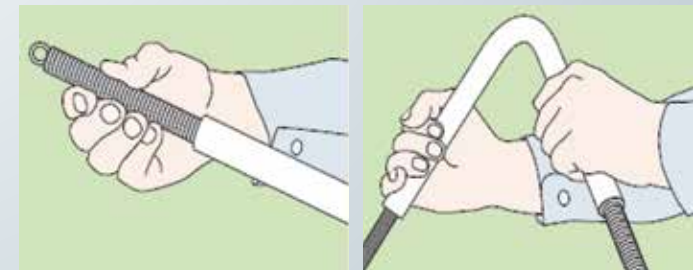
Plain pipes and socketing pipes are available as per customer requirements.

5.1.1 Bending of UPMC uPVC Electrical Conduit Pipes

To bend circular conduit, insert the appropriate spring. The spring has an “eye” formed on one end, to which a cord should be attached in order to withdraw the spring. The bend is then made by hand or across the knee.


Twice the angle required should be bent and the tube then allowed easing back to the desired position.

Do not attempt to force the bend back with the spring inserted, as this action will damage the spring. When withdrawing the spring it is suggested that it be twisted in an anti-clockwise direction thus reducing the diameter of the spring and providing easy withdrawal. It is important to use the correct size spring. In cold weather it may be necessary to warm the tube slightly at the point where the bend is to be made. Always saddle the tubing as quickly as possible after bending.



5.2 UPMC Electrical Conduit Fittings (BS- 4607, Part-2) & GSO 33/2007

Socket (Coupler)

|  | Size mm | QTY (PCs/ Carton) |
|---|---------|----------------------|
| | 19 | 300 |
| 20 | 400 | |
| 25 | 200 | |
| 32 | 85 | |
| 38 | 85 | |
| 50 | 37 | |

Normal Bend

|  | Size mm | QTY (PCs/ Carton) |
|---|---------|----------------------|
| | 19 | 150 |
| 20 | 140 | |
| 25 | 70 | |
| 32 | 250 | |
| 38 | 120 | |
| 50 | 70 | |

Junction Box

One Way (A)

|  | 19 | 40 |
|---|----|----|
| | 20 | |
| | 25 | |

Two Way (A)

|  | 19 | 40 |
|---|----|----|
| | 20 | |
| | 25 | |

Two Way (S)

|  | Size mm | QTY (PCs/ Carton) |
|---|---------|----------------------|
| | 19 | 40 |
| | 20 | |
| | 25 | |

Three Way

|  | Size mm | QTY (PCs/ Carton) |
|---|---------|----------------------|
| | 19 | 40 |
| | 20 | |
| | 25 | |

Four Way

|  | Size mm | QTY (PCs/ Carton) |
|--|---------|----------------------|
| | 19 | 40 |
| | 20 | |
| | 25 | |

U Way

|  | Size mm | QTY (PCs/ Carton) |
|---|---------|----------------------|
| | 19 | 40 |
| | 20 | |
| | 25 | |

Y Way

|  | Size mm | QTY (PCs/ Carton) |
|---|---------|----------------------|
| | 19 | 40 |
| | 20 | |
| | 25 | |


Loop In Box

|  | Size mm | QTY (PCs/ Carton) |
|---|---------|----------------------|
| | 19 | 72 |
| | 20 | |
| | 25 | |

H Way

|  | Size mm | QTY (PCs/ Carton) |
|---|---------|----------------------|
| | 19 | 50 |
| | 20 | |
| 25 | | |

Female Thread Adaptor

| | | |
|---|----|-----|
|  | 19 | 450 |
| | 20 | 400 |
| | 25 | 250 |
| | 32 | 150 |
| | 38 | 100 |
| | 50 | |

Male Thread Adaptor

| | | |
|---|----|-----|
|  | 19 | 450 |
| | 20 | 400 |
| | 25 | 250 |
| | 32 | 150 |
| | 38 | 100 |
| | 50 | |


Expansion Coupler (Socket)

|  | Size mm | QTY (PCs/ Carton) |
|---|---------|----------------------|
| | 19 | 180 |
| | 20 | 150 |
| | 25 | 90 |
| | 32 | 60 |
| | 38 | 44 |
| 50 | 24 | |

Adaptable Box

| | | |
|---|------------------------|----|
|  | 150 x 100 (6" x 4") | 76 |
| | 150 x 150 (6" x 6") | |


Surface Mounting

|  | Size mm | QTY (PCs/ Carton) |
|---|----------------------|----------------------|
| | 87 x 87 (3" x 3") | 38 |
| 87 x 147 (3" x 6") | 15 | |

Circular LID

|  | Size mm | QTY (PCs/ Carton) |
|---|---------|----------------------|
| | 65 | 800 |
| 85 | 700 | |

Surface Mounting Box Lid

|  | 87 x 87 (3" x 3") | 480 |
|--|------------------------|-----|
| | 87 x 147 (3" x 6") | 330 |
| | 150 x 100 (6" x 4") | 200 |
| | 150 x 150 (6" x 6") | |

Space Bar Saddle

| | | |
|--|----|--|
|  | 19 | |
| | 20 | |
| | 25 | |
| | 32 | |
| | 38 | |
| | 50 | |

Standard Color: Black & White



5.3 Features of UPMC uPVC Electrical Conduit System:

- Wide range of sections and sizes.
- Oval, round and corrugated sections are compatible.
- Simple and fast installation.
- Very wide range of components maximizes versatility of application.
- Very durable and impact resistant.
- 3 grades of round conduit to suit various site conditions.

UPMC high impact conduit offers a cost effective solution for both new and refurbishment contracts.

The wide range of fittings and ancillary products means that almost any installation can be specified for with confidence. UPMC conduits are light in weight, the smaller sizes can be bent cold and they can easily be cut using a hacksaw.

This means that installation can be 50% quicker than using steel. Repairs and alterations are also simpler and quicker to make.

UPMC electrical products are widely used for a multitude of utility uses, including power, telephone, utility and non-pressurized fiber-optic applications.

6. Transport and Handling

- While uPVC pipes are light and easy to handle, they should not be maltreated. The protection of the prepared pipe ends is particularly important.
- Pipes or fittings should never be dropped on hard surfaces.
- Pipes should be transported by a suitable vehicle, having a flat and level load bed with no sharp objects or projections and able to support the complete plan area and weight of the pipe being transported.
- During transport, pipe should be supported along the length on timber battens not less than 75mm wide, at spans not exceeding 1m.
- During transport, all loads should be securely anchored with suitable ratchet webbing load straps so as to prevent movement and chaffing of the pipe.
- The loading and unloading of pipe should be under trained and experienced supervision.
- Wide band slings of a non-metallic material should be used when lifting pipe bundles by crane. Do not use hooks, chains or hawsers.
- Lifting points along pipe lengths or pipe bundles are to be evenly spaced.

7. Storage

Fittings

- Store in cool dry conditions, preferably under cover so as to avoid damage of any kind; soiling, UV exposure and contamination by oils, petrol or greases.
- Rubber items should be stored in a cool, dry, dark place.

Pipe

- Store away from excessive heat.
- Avoid contamination by oils, petrol or greases.
- uPVC Sewer and Drainage pipe stored for an extended period (more than 3 months), should be completely covered with an opaque UV resistant material.
- The storage area must be flat and level, with no sharp objects or projections and able to support the complete plan area and weight of the material being stored.
- Pipe should be stored in a bundled beehive configuration not exceeding 1m in height.
- Lengths should be evenly supported at spans not exceeding 1m.
- Socketed pipes should be stacked with sockets at alternate ends protruding; ensuring pipes are evenly supported.
- For temporary storage on site, the ground should be level and free from stones or sharp objects likely to damage the pipe.
- Carefully store pipe in tapered stacks or cross stacks not more than 1 meter high
- It is important that each pipe should have an even bearing throughout its entire barrel length.
- Pipes of different sizes should be stacked separately. Where this is not possible, larger diameter pipes should be placed at the bottom.



8. Our Quality

Quality Control Process employed in UPMC Quality Control Department consists of three phases as per ISO 9001:2008:

- Incoming Quality Control.
- Process Quality Control.
- Output- Final Quality Control.

Ensuring that all our product meets the national and international standards required by continuous testing of the product in our laboratory and from third parties testing certificates.

Quality Control of UPMC uPVC products

- Continuous measurement of dimensions using:
 - Caliper 0-150mm / 0-6" (Vernier)
 - High Accuracy MDH Micrometer 0-25mm / 0-1"
- Continuous checking of K-Value (Kinetic Viscosity using Viscometer)
- Determines specific gravity & density of resins (Weighing Scale & Silica Crucible and solvents).
- Hydrostatic Pressure Testing: (for checking the creep rupture



of pipe when subjected to internal pressure under a specific condition.

- Oven for checking Longitudinal Reversion or effects of Heating to Measures the change in length of the sample after exposure to high temperature and the ability to resist heat without showing delimitation, cracks or blisters.
- Universal Testing Machine for checking: Peak load, Elongation at Peak load, Break load, Elongation at break load, , Tensile strength at Peak, Tensile strength at Break, Flexural stress, Compression Strength, & Flexural Modulus.

9. The uniqueness and superiority of UPMC

For the management of UPMC, customer satisfaction is the prime objective and we all are committed to continuously improve our products and services through the use of latest technology, information systems and diligent implementation of quality management systems.

UPMC Pipes & Fittings

Provide best Products and services to our customers

1. UPMC products are true Omani products.
2. Wide range of product:
3. UPMC has stock availability at all times.
4. UPMC ensures timely deliveries to its esteemed clients.
5. UPMC provides best ever services to the clients. (Pre-sales as well as post-sales – as committed).
6. 15 years* Warranty against any manufacturing defects.

10. Plumbing Materials Comparison

| CRITERIA | GI | COPPER | HDPE | UPMC PVC | UPMC PP-R |
|--|--------------------------------|--------------------------------|--|--|--------------------------------|
| JOINTING TECHNIQUES | Threaded | Soldered/Ferrule | Fusion Weld | Solvent cement or Ring seal | Fusion weld |
| CORROSION RESISTANCE | Very Low | Low | No Effect | No Effect | No Effect |
| THERMAL STRENGTH PROPERTY AT 60 °C TEMP. | Very good | Very good | Limited | Not Recommended | Very good |
| AVAILABILITY OF FITTINGS | Very good | Average | Low | Good | Very good |
| THERMAL EXPANSION | Low, good for concealed piping | Low, good for concealed piping | Very High, not to be used for concealed piping | Very special care is required for concealed piping | Low, good for concealed piping |
| FLOW PROPERTIES FOR FRICTION | Low | Very good | Very good | Very good | Very good |

Table (10)

11. CERTIFICATES

- Compliance Certificate to Omani / Gulf Standard Organization as per standard GSO 1127/2002, 898/1997, 33/2002) from Ministry of Commerce and Industry (Directorate General of Specification & Measurement, Muscat)
- Compliance Certificate to British & European standards from AI Hoty Stangers Laboratories
- Quality Management System ISO 9001:2008





United Plastic Manufacturing Co. LLC

PO Box: 2151, Postal Code: 112, Ruwi

Sultanate of Oman, Tel: +968 2445 1779, Fax: +968 2445 1774

Email: sales@unitedplasticoman.com | www.unitedplasticoman.com

هيئة التقييس
امول مجلس التعاون اجول الخليج العربية
GCC Standardization Organization



سابك
sabik