HYDROTECH™ MS3
MULTI-LAYER PVC-U

LEAD-FREE PIPE SYSTEMS

SUITABLE FOR BUILDINGS, HOUSES AND CIVIL CONSTRUCTION PURPOSES.
PRODUCT RANGE

HYDROTECH
MS 3 PIPES

FEATURES

• Multi-layer technology
• Hydrostatic strength
• Corrosion resistance

ADVANTAGES

• Superior Abrasion Resistance
• Ductility and Flexibility
• High Performance Thermoplastic Pipes

APPLICATION

Hydrotech MS3 Piping are recognised for their advantages, and are suitable for pressure applications for supplying potable water, irrigation and fire fighting.
3 Layer Technology

To manufacture Hydrotech MS3, Paling is using the most advanced polymer pipe technology used in the Aliaxis Group subsidiaries worldwide.

The 3 layer structure provides a comprehensive overall pipe wall resistance to internal and external mechanical stress.

Hydrotech MS3 is constructed from premium quality material, processed on modern extrusion tools, ensures the exceptional durability of the pipeline.

This technology has been in use for more than 10 years overseas, specifically in Britain, North America and South Africa.

With ISO 9001:2008 certification and Total Quality Management, the entire Manufacturing process is strictly controlled to ensure product reliability.

The use of Hydrotech MS3 Three Layer Pipe in water supply application is a logical progression to supply a cost effective product that can withstand the rigours of the water industry.

Application

- Water Supply Distribution/Reticulation
- Pressure Sewer
- Irrigation
- General Conveyance of fluid under pressure

Approval

<table>
<thead>
<tr>
<th>Approval</th>
<th>Standard and Specification</th>
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</thead>
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| Approval for underground usage by SIRIM and SPAN for potable cold water lines | MS 628: PT1: 1999  
   MS 628: PT2: 1999 |

FEATURES & ADVANTAGES /// HYDROTECH MS3 PIPING SYSTEM

Premium high grade polymer for strength and durability

Hydrotech™ MS3

Polymer matrix for additional strength

A. Hermetically sealed - an effective barrier insulating the pipe from outside influences.

B. Smooth walls reject stains and other deposits, preventing them from sticking.

C. Stops chemicals and bacteria from reacting with the pipes.

D. Above all else, Hydrotech MS3 pipes provide us with pure water.
QUALITY & CERTIFICATION

SYSTEM CERTIFICATION

PIPECERTFICATION

1. Multi-layer Unplasticized Polyvinyl Chloride (PVC-U) pipes for water supply systems
2. Unplasticized Polyvinyl Chloride (PVC-U) pipes for water supply systems

FITTINGS

1. Unplasticized Polyvinyl Chloride PVC-U Fittings and Joints for water supply systems

For updated copies of our certificates, please visit the Paling website www.paling.com.my
PIPE MARKING FOR TRACEABILITY

1: The word “PALING” or Paling Logo with the word “PALING”
2: The word SIRIM CERTIFIED or MS LOGO
3: SIRIM License number
4: Standard conformance and year of standard
5: Nominal size
6: Pressure rating
7: Batch
8: Manufacturing date
9: Manufacturing Shift code
10: Lead Free
11: Quality Mark

DIMENSION

PIPES
(BELL MOUTH SOCKET AT ONE END)

PN 6/ CLASS B

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FITTINGS (BELL MOUTH SOCKET AT ONE END)
A wide range of complimentary fittings is available for use with Hydrotech MS 3 pressure pipes. There are variety bends and socket for sizes up to 250mm diameter.

### 22.5° BEND BELL MOUTH

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△ Fabrication item

### 45° BEND BELL MOUTH

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△ Fabrication item

### 90° BEND BELL MOUTH

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△ Fabrication item

### DOUBLE END SOCKET BELL MOUTH

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△ Fabrication item
The assembly of one pipe to another may be performed using various methods. One of the most successful methods employs a rubber ring joint. The rubber ring joint may be either of integral socket design (formed as a continuous, homogeneous entity with the pipe) or it may consist of a separate sleeve-type coupling. The joint provides the following advantages:

- Allowance for expansion and contraction.
- Reliably assembled in poor weather conditions.
- Consistent reliability.
- Flexibility and resiliency.
- Labour saving and overall economical.
- Ease of installation.

When the rings are colour coded, be sure to consult the pipe manufacturer or their literature for the difference. In all cases, clean the ring, the socket or the coupling interior, especially the groove (except when the ring is permanently installed) and the spigot with a rag, brush or paper towel to remove any dirt or foreign material before assembling. Inspect the ring, pipe spigot chamber, ring groove and sealing surfaces for damages or deformation. Use only rings which are designed for and supplied with the pipe. Insert them as recommended by the manufacturer.

Lubricant should be applied as specified by the pipe manufacturer. Bacterial growth, damage to gaskets or the pipe, may result from the use of non-approved lubricants. Use only the lubricant supplied by the pipe manufacturer.

While keeping the lengths in paper alignment, brace the socket and push the spigot into the bell. The spigot should be inserted until the reference mark on the pipe barrel is even with the edge of the socket.
JOINT WITH DUAL HARDNESS PIPE SEAL

Application advantages of Paling Bell-Mouth Rubber Ring Joint (RRJ) piping fitted with the locked-in pipe seal:

• One price constriction seal with Hard and Soft rubber bonded firmly together.
• Hard rubber for retaining. Soft rubber for sealing.
• No loose retaining ring of device needed.
• Designed to be retained tightly in the socket groove and yet, can be removed for cleaning purposes prior to assembly.

• The exclusive “DOUBLE COMPRESSION LIPS” design gives extra compression, hence provides additional sealing performance against spigot and socket.
• The sealing lip is designed to prevent sand and/or other foreign particles from penetrating the joint.
WHAT ARE THREE-LAYERED HYDROTECH MS3 PIPES?
Produced using European technologies, three-layered Hydrotech MS3 pipes are becoming increasingly popular around the world. These are made of high grade polymers with improved UV, bacterial and mechanical impact resistance. These qualities are present in both inside and outside layers, along with high-strength polymer matrix intermediate layers.

WHAT ARE THE MAIN FEATURES OF THREE-LAYERED TECHNOLOGY?
Multiple layers have higher resistance to overall failure arising from deformation and buckling. They are also more effective in accommodating pressure and absorbing impact.

DOES A THREE-LAYERED PIPE REQUIRE DIFFERENT OR SPECIALIZED INSTALLATION TECHNIQUES?
The method of installation is similar to that used for ordinary, single-layered PVC pipes. In fact, three-layered pipe installations have more flexible requirements and are more practical for contractors to install.

ARE THREE-LAYERED PIPES COMPATIBLE WITH OTHER WATERWORKS FITTINGS?
The sizes of three-layered pipes are compatible with other commonly available waterworks components, including those made of metal. They do not require any special adaptors or additional jointing works in order to connect with pipes made of other materials.
ABOUT US /// HYDROTECH MS3 PIPING SYSTEM

PALING INDUSTRIES SDN. BHD. WAS ESTABLISHED IN 1971 TO PRODUCE PVC-U PIPES & FITTINGS IN MALAYSIA. OVER THE YEARS IT HAS EXPANDED ITS RANGE TO OTHER SANITARY PRODUCTS AND SYSTEMS LIKE PLASTIC CISTERNS AND OTHER ACCESSORIES.

These systems are suitable for various applications and building types, including domestic, commercial, industrial and civil construction projects. Paling products are accurately designed to consistently exceed the performance aspects specified under widely recognized standards.

Along with ISO 9001 certification and various approvals by SIRIM and IKRAM, Paling products are accredited by NSF, an authority in water industry standards.

Paling products are manufactured under an effective system of inspection, testing, supervision and control.

ABOUT
PALING INDUSTRIES

ABOUT
THE ALIAxis GROUP

THE ALIAxis GROUP IS A LEADING GLOBAL MANUFACTURER AND DISTRIBUTOR OF PRIMARY PLASTIC FLUID HANDLING SYSTEMS USED IN RESIDENTIAL AND COMMERCIAL CONSTRUCTION.

Aliaxis is present in more than 40 countries. The Group has more than 100 manufacturing and commercial entities and employs over 15,700 people.

The ethos of the Group allows local and global knowledge of the industry, regulations and building practices to combine and provide consistently excellent customer service to specifiers, consultants, contractors, installers and others.

IN ASIA

Malaysia: Kuala Lumpur
Vietnam: Ho Chi Minh
India: Bangalore, Mumbai & Goa
Singapore
China: Beijing, Shanghai & Guangzhou

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