KRAH
EMIRATES PIPES

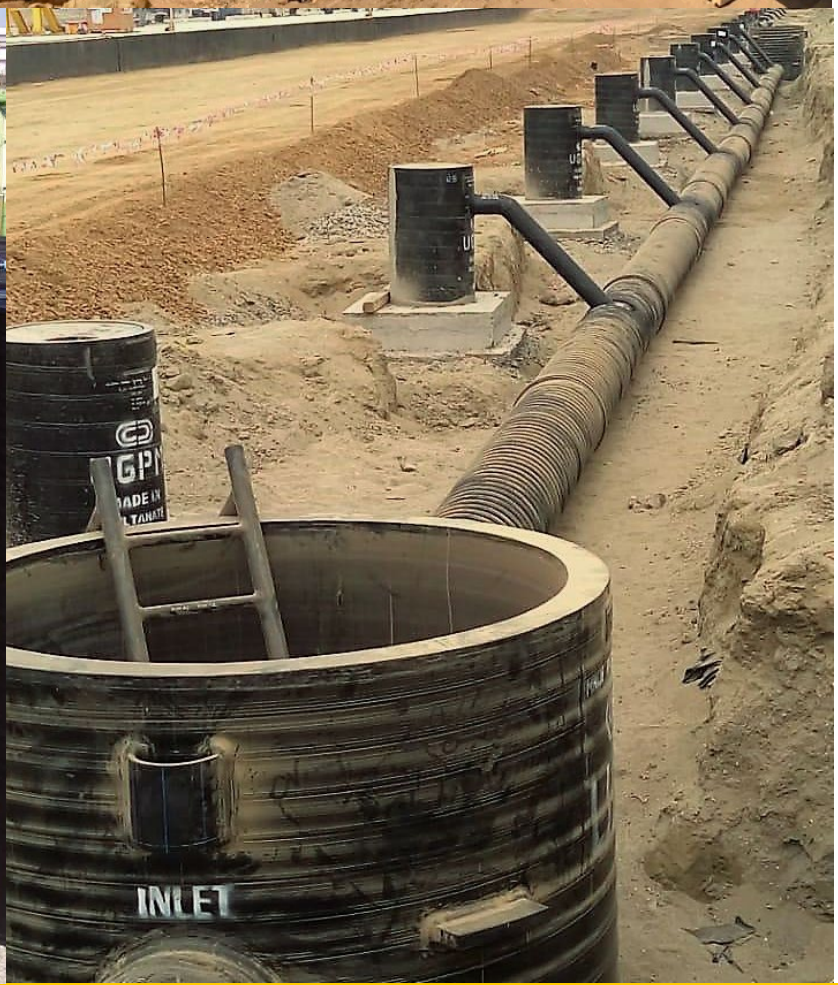
Polyethylene pipe system for Infrastructure











Safe, huge

and designed to perform according to YOUR requirements

10 Reasons to use HDPE Pipes for your infrastructure projects in place of conventional materials

Most sewage and waste water systems in Middle East and Asia are still designed in rigid pipe materials such as concrete, clay and asbestos cement. However, with the introduction of thermoplastics like HDPE, a versatile material, there are many benefits offered, which needs to considered for a sustainable infrastructure.

1

Design Freedom

The pipes produced by KRAH technology can be designed with optimum stiffness to weight ratio in sizes from 300 to 4000 mm using solid wall or structural wall designs. The pipes can be used to fabricate manholes or tanks according to the requirements. An optimized design is possible

2

Light weight and easy to install

The specific weight of the material is lighter than the conventional material. This means a lower cost for transportation and handling equipment costs. Pipes can be welded above the trench in long lengths and lowered into the trench.

No special bedding required while installation

3

Flexible and able to absorb external load

Flexible pipes absorb external loads by deformation. This small amount of deformation transfers stress to the side fill material around the pipe with negligible reduction is the flow capacity of the medium, compared to rigid material, where the stresses are retained in the pipe wall which eventually leads to cracks and failure. Flexibility is a safety.

Due to flexibility, no special fittings are required for a smaller curve.

4

Tough but unbreakable

HDPE pipes and accessories are resistant to impact during transportation, handling and installation.

5

Hydraulically smooth bore

The pipes have a very smooth internal surface, this a very low friction factor. Typically the C – coefficient is 150 and this remains same throughout the lifetime compared to concrete which decreases over a period of time. This means capacity reduces and flow velocity increases

6

Easy to Joint – also to old pipe systems

Jointing can be done by the electrofusion, extrusion or butt fusion welding. This prevents any leakages and forms a homogeneous system, thus eliminating any exfiltration or infiltration or any threat of root intrusion, thus reducing the chance of any maintenance or replacement of the system

7

Resistant to Corrosion

Corrosion is a major problem in the network for the failure of the system in the conventional materials. This is more common in the waste water network where the formation of sulphuric acid on the pipe wall due to oxidation of H_2S gas in the system. This leads to the loss of wall thickness and eventual collapse of the pipe.

8

Abrasion Resistant

Tests result from the so-called Darmstadt procedure acc. to DIN EN 295-1 have shown that HDPE have much higher resistance to abrasion than concrete, clay or asbestos cement pipes. It is for this reason HDPE pipes are used to carry slurries in mining industries, a property equally important for sewers in Middle East where sand is often carried.

9

Durable systems with a long maintenance free life

The KRAH pipe systems are totally resistant to corrosion and do not loose wall thickness or the hydraulic capacity in operation, therefore it still retains the strength, unlike concrete and asbestos cement. Studies have shown that risk in failure is negligible. HDPE pipe systems will resist cracks even under deformations much higher than those that could be experienced in practice.

10

Recyclability & Sustainability

HDPE pipes after its lifetime can be recycled and reprocessed without the structure of the resin having to be modified dramatically. The reprocessed material can be used to manufacture same or other products

Standards

The standards followed are as below

Pipe or Shafts – EN 13476, DIN 16961
Statistical dimensions – ATV A127
Hydraulic dimensioning – ATV A 110
Pipe Installation – EN 1610
Jointing of the pipes – DVS 2207
Vertical shafts for manholes – ASTM F1759 & ATV 127

About KRAH Emirates

KRAH Emirates Pipes Manufacturing Co. LLC, located in Musaffah South ICAD II, UAE, was established, to provide the infrastructure solutions. Presently HDPE structural wall as well as solid wall pipes using KRAH technology for various applications like sewerage, storm networks, offshore applications are manufactured. KRAH Emirates provides a complete solution required for any infrastructure

For more details contact us

KRAH Emirates Pipes Manufacturing Co. LLC
Musaffah South, ICAD II
P.O. Box 2333
Abu Dhabi, United Arab Emirates

Email : mqe2333@mqe.ae
Telephone : +971 2 6423999
Facsimile : +971 2 6423900