



KRAH HDPE PIPES

www.krahborneo.com



• **OVER 50 YEARS** •
OF PROVEN DURABILITY AND TRUST



STANDARDS
DIN 16961: Part 1 & 2
Thermoplastics pipes and fittings with
profiled wall and smooth pipe inside.



INTRODUCTION



Krah Grande Borneo Sdn Bhd (Krah Borneo) specializes in production and distribution of Krah Pipe, an innovative piping system.

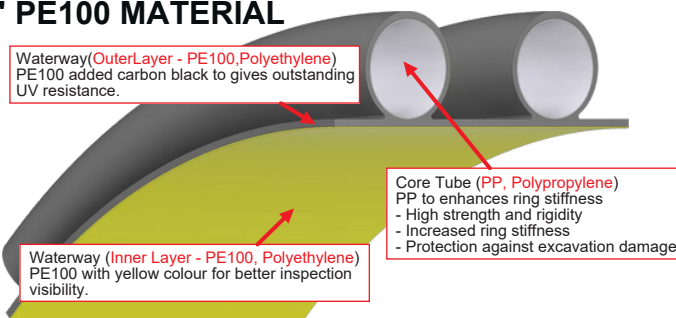
Krah pipes are high-performance polymer pipes that are produced using a specialized extrusion technology developed by Krah GmbH, a German company that specializes in the design, engineering, and manufacturing of plastic pipe systems.

Krah Borneo's introduction of Krah Pipe demonstrates our commitment to providing reliable and efficient solutions for piping needs in different industries.

OUR MATERIAL: "ORIGINAL" PE100 MATERIAL

KRAH PIPE WALL OPEN PROFILE

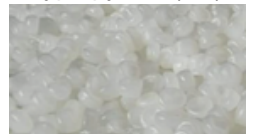
- * Impact Resistant
- * Abrasive Resistant
- * Temperature Resistant
- * Resistant to Microorganisms
- * Chemical Resistant
- * No Corrosion
- * No Ageing



Polyethylene (PE100)



Polypropylene (PP)



RANGE OF PRODUCTS

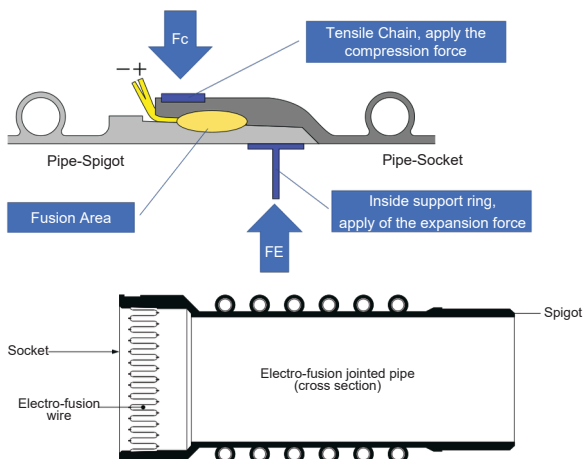
Our pipes can be manufactured to customized lengths, with a standard length of 6 meters. Longer, continuous lines are achieved using certified electrofusion jointing, ensuring a permanent, leak-free system.

Standard Length : 6meter							
SN2 ($\geq 2 \text{ kN/m}^2$)		SN4 ($\geq 4 \text{ kN/m}^2$)		SN8 ($\geq 8 \text{ kN/m}^2$)		SN12.5 ($\geq 12.5 \text{ kN/m}^2$)	
SKU	DN/ID	SKU	DN/ID	SKU	DN/ID	SKU	DN/ID
		KP0600SN040	600	KP0600SN080	600	KP0600SN125	600
KP1000SN020	1000	KP1000SN040	1000	KP1000SN080	1000	KP1000SN125	1000
KP1200SN020	1200	KP1200SN040	1200	KP1200SN080	1200	KP1200SN125	1200
KP1500SN020	1500	KP1500SN040	1500	KP1500SN080	1500	KP1500SN125	1500
KP1800SN020	1800	KP1800SN040	1800	KP1800SN080	1800	KP1800SN125	1800
KP2000SN020	2000	KP2000SN040	2000	KP2000SN080	2000	KP2000SN125	2000

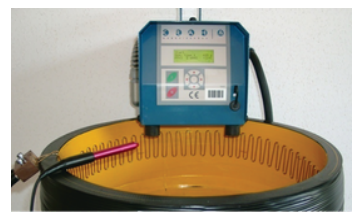
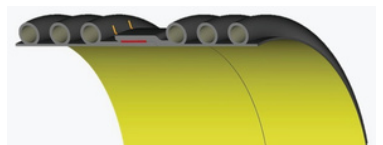
*KP(Krah Pipe) 0600(DN/ID) SN020(Ring Stiffness)

JOINTING TECHNOLOGY

Pipes with socket & spigot are available for Electro-fusion jointing. It eliminates concerns by guaranteeing a solid homogeneous pipe - a leak-free and durable solution.



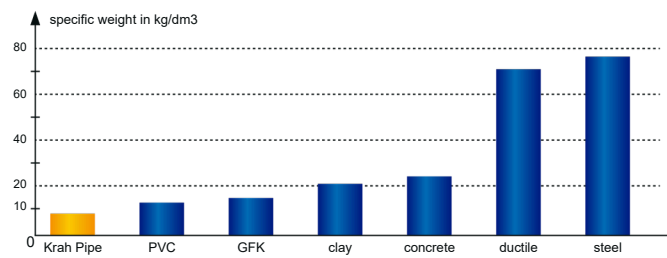
- * Homogenous welded connection
- * 100% tight, zero leak
- * No coupling used
- * No rubber seal used



PRODUCT FEATURES AND ADVANTAGES

Lightweight

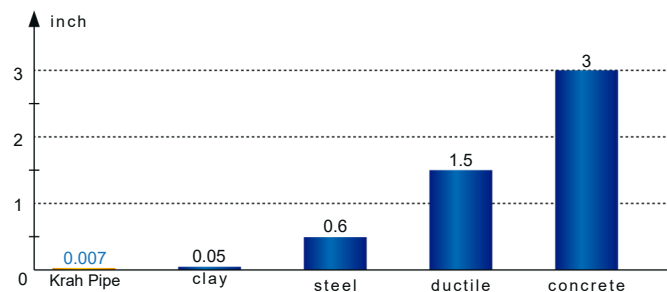
Krah pipes have a low specific weight, facilitating easy handling during installation.



* Specific Weight comparison across building materials

Consistent Hydraulic Properties

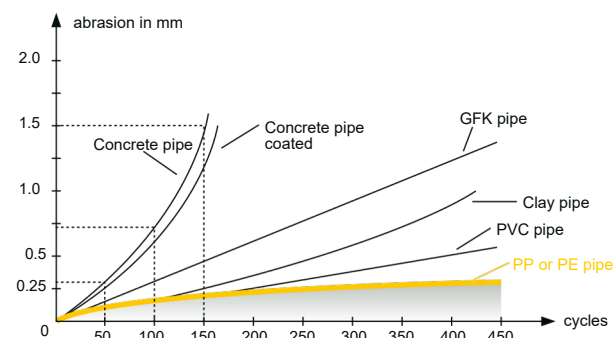
The inside diameter and hydraulic properties of Krah pipes remain consistent irrespective of the wall thickness or profiles, thanks to the smooth anti-adhesive inner pipe surface. This ensures high flow capacity throughout the system.



* Wall Roughness Index comparison across building materials

Abrasion Resistance

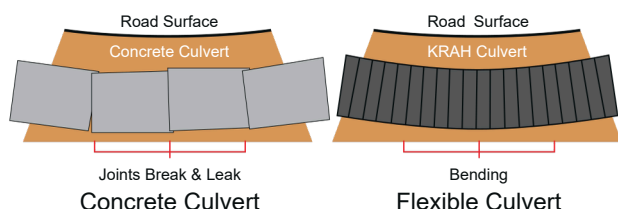
Polyethylene and polypropylene pipes are renowned for their exceptional resistance to abrasion.



* Abrasion curve of various pipe material according to the Daemastadt procedure

No Joint Dislocation

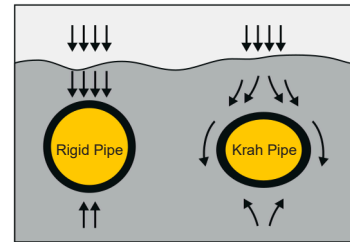
Krah pipes are engineered with inherent flexibility to adapt to soil settlement and unstable ground conditions.



High Flexibility

Krah pipes, crafted from polyethylene and polypropylene, offer significant advantages over alternative materials such as concrete, steel, and ductile iron. They can withstand unexpected loads or deformations, including seismic activity, beyond their initial design parameters.

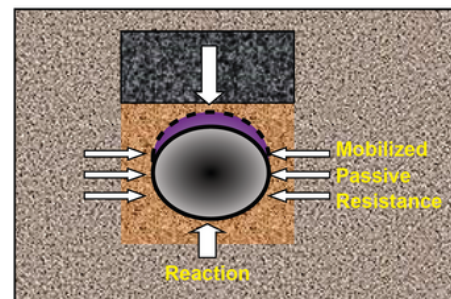
Their flexibility makes them ideal for road construction, as they effectively bear traffic and other loads, surpassing the performance of rigid materials like concrete in flexural-resistant pipes.



* Deflection of rigid pipes compared to flexural resistant pipes

Deformation Resistance

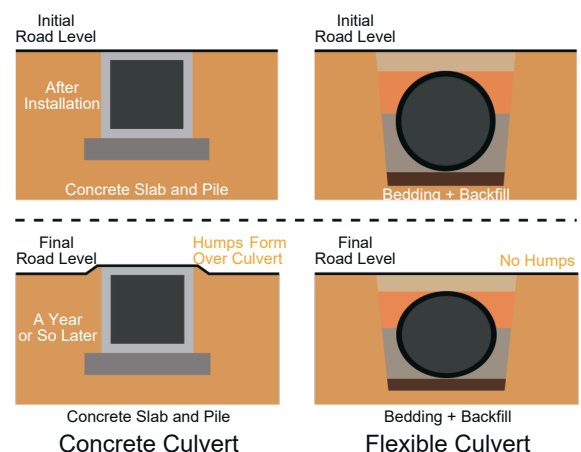
Krah pipes possess elasticity to adapt to environment changes and flexibility under static loads, effectively redistributing the loads to the surrounding soil. Krah pipes are highly resilient to temperature variations.



* Earth Pressure

Natural Settlement

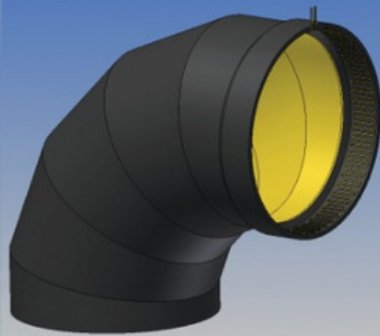
Unlike rigid concrete culverts that create hazardous humps due to soil settlement, Krah pipes require no piling and flex naturally with the ground.



ENGINEERING SOLUTIONS



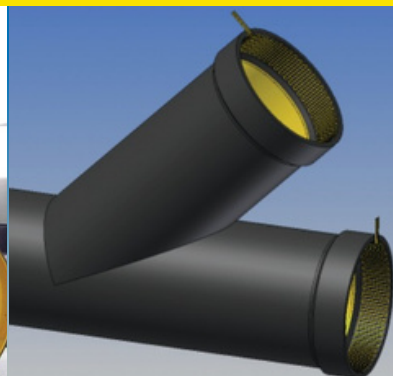
Flap Gate



Bends



Manhole



Branches

CULVERT



KRAH GRANDE BORNEO SDN. BHD. [Registration No.:202101037058 (1437358-P)]

Sibu Head Office:

No. 66-78, Pusat Suria Permata, Jalan Upper Lanang,
C.D.T. 123, 96000 Sibu, Sarawak, Malaysia.

Tel: 084-211555 Fax: 084-211886

Website: www.krahborneo.com

Email: info@krahborneo.com

Kuching Office:

Lot 11298, Section 64 KTLD, Jalan Datuk Abang Abdul Rahim
93450 Kuching, Sarawak, Malaysia.

Tel: 082-297638

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