

# Hybrid Barrier Pipe

## PRODUCT CODE(S)

### GMUP100/110/120

STÖRNCH HYBRID Barrier Pipe is a composite pipe of five layers; inside and outside layers of which are made of Cross-Linked (PEX), tightly bonded with melt adhesive to the mid-layer of aluminium core which is longitudinally welded in a butt-welded or overlap-welded way, this kind of pipe is the perfect union of metal and plastic ones. For use with water up to 85°C.



Code	GMUP100	GMUP110	GMUP120
Name	Coiled Barrier Pipe	Pre-Insulated Coiled Barrier Pipe	Pre-Insulated Coiled Barrier Pipe
Colour	White	Blue insulation	Blue insulation
Diameter	25mm	25mm	25mm
Wall insulation	-	9mm	13mm
Length	50m	50m	50m
Quantity	50m coils	50m coils	50m coils
Performance	-40°C to +95°C	-40°C to +95°C	-40°C to +95°C



## BENEFITS

- Absolutely oxygen diffusion tight, multi-layer composite pipe.
- Easy handling.
- Low weight.
- High inherent stability and bend flexibility.
- Low linear expansion.
- Excellent hydrostatic stress performance.
- Corrosion resistance.

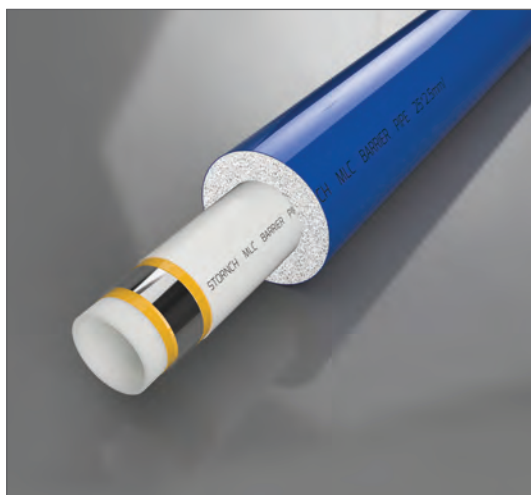
## PROPERTIES

- Compared with metal pipe, the composite pipe has the same strength, is easy to bend, and reluctant to return to its former shape.
- High temperature, high pressure, and corrosion resistant.
- Smooth inner surface of the pipe reduces resistance to fluids. The ability to conduct water is 30% more efficient.
- Good property of heat preservation, heat conduction coefficient is 0.45/ m.k.
- Easy to cut and install.
- Life span of more than 50 years.

# Hybrid Barrier Pipe



Barrier Pipe with insulation



## TECHNICAL DATA AND DELIVERY DIMENSIONS

Dimensions OD x s	
Inner diameter ID (mm)	20
Length coil (m)	50/100
Length straight length (m)	5
Outer diameter coil (cm)	120
Weight coil/straight length (g/m)	211/240
Weight coil/straight length with water 10°C (g/m)	525/554
Weight per coil (kg)	10.6/21.1
Weight per straight length (kg)	1.20
Water volume (l/m)	0.314
Pipe roughness k (mm)	0.0004
Thermal conductivity (W/m K)	0.40

### Maximum temperature 95°C\*

Maximum continuous operating pressure 10 bar at 70°C continuous operation temperature, Tested hydrostatic stress performance 50 years, safety factor 1.5\*

Coefficient of expansion (m/m x K)	$25 \times 10^{-6}$
Min. bending radius by hand 5 x OD (mm)	125
Min. bending radius with inner blending spring 4 x OD (mm)	100
Min. bending radius with outer blending spring 4 x OD (mm)	100
Min. bending radius with bending tool (mm)	80



## COMPARISON OF INNER AND OUTER DIAMETERS (OD & ID) OF MLCP AND METAL PIPES

Dimensions	Copper to BS EN 1057 R250	MLCP
OD	22	25
Wall thickness	0.9	2.5
ID	20.2	20

### ACCREDITATIONS – APPROVALS/CERTIFICATIONS/COMPLIANCES

Verified according to EN ISO 21003, applicable to multilayer pipes  
 WRAS (Water Regulations Advisory Scheme Ltd) Material Approval: BS6920-1:2000 and 2014  
 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'. Approval Number: 1411523.