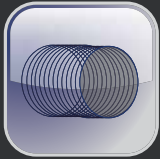




50

SPC

together @ VINCI



HDPE

corrugated pipes





# MAGNUM

## CORRUGATED HDPE PIPES FOR SEWER AND STORMWATER

### TECHNICAL SPECIFICATIONS

SANS 21138-3  
ISO 9001/2008

- The pipe is black outside and blue on the inside
- Supplied in lengths of 6 meters.
- Pipes connected by socket connectors and exterior sleeves.
- Test certification on hydraulic seal of the gaskets is according to EN 1277:2003
- Test certification on abrasion resistance is verified according to DIN EN 295-3.

### GENERAL FEATURES

DESIGN:	Double-wall pipe, black outside, blue inside.
APPLICATION:	Refer to section below.
CRUSH RESISTANCE:	8KN/m <sup>2</sup> measured according to SANS 21138-3.
PRESENTATION:	6 meter lengths.
ACCESSORIES:	Couplings and gaskets.
INSTALLATION:	Underground.

### APPLICATION

Corrugated HDPE pipes for sewers and stormwater

### ADVANTAGES OF CORRUGATED HDPE PIPING FOR SEWERS AND STORMWATER

- Lightweight and easy to handle
- Easy to lay
- Durable, versatile and safe
- Low cost

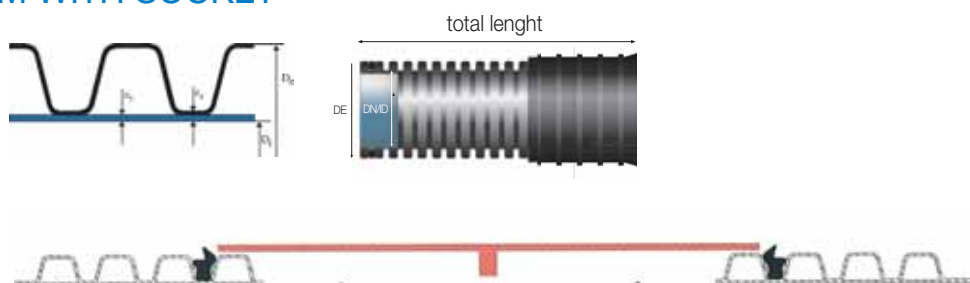
### MAGNUM PIPES – SIZES AND TRANSPORTABLE QUANTITIES – HEAVY DUTY

6 m LENGTHS – SN 8 KN/m<sup>2</sup> (Ring Stiffness)

Outside diameter DN/OD (mm)	160	230	291	353	417	473	500	630	800	1000	1200
Internal Diameter (mm)	138	200	250	300	350	400	433	546	693	867	1036
Lengths per pallet	59	27	18	10	8	5	5	bulk	bulk	bulk	bulk
Total meters per truck**	2832	1296	864	480	384	240	on request	on request	on request	on request	on request

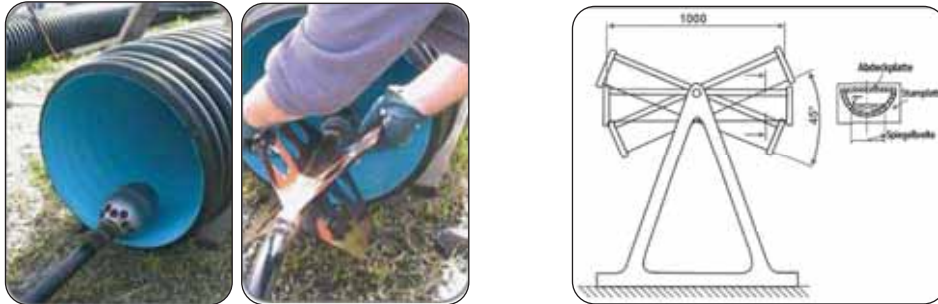
\*\* 12 m deck

### CONNECTION SYSTEM WITH SOCKET



## RESISTANCE OF ABRASION AND CLEANING WITH CANAL-JET

The resistance to abrasion is the resistance to friction with particles such as gravel, sand, stones, etc., which are elements that may be contained in the fluid transported through the pipes. The scarce roughness of the PE reduces said coefficient and as a consequence, the abrasion of its surface. The MAGNUM pipe boasts of a resistance to abrasion up to 5 times greater than that of cement pipes and makes it particularly suitable for sewer networks. In the case of pipes produced with low resistance to abrasion, the shrinking of the layers' thickness due to erosion increases the tension and therefore, it decreases the useful life.



Left: On-Site Testing Left and middle: Abrasion tests using probes. Right: Simulation of Abrasion Test

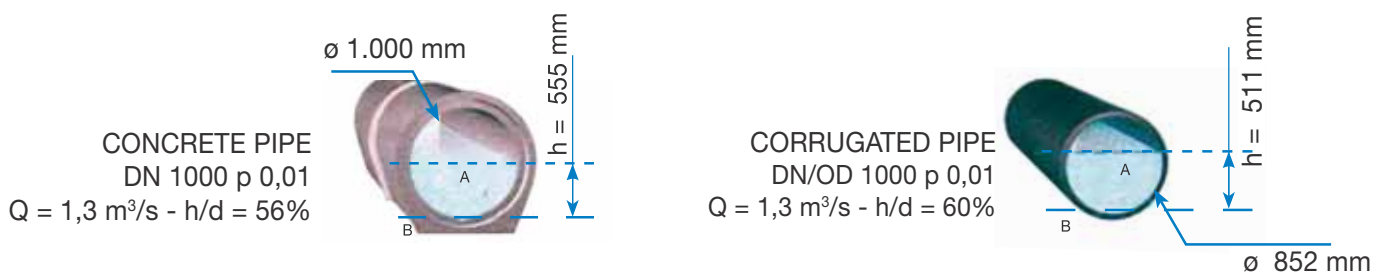
Cement	PRFV	STEEL	PVC	SANDSTONE	HDPE
= 20 h	= 25 h	= 34 h	= 50 h	= 60 h	= 100 h

Tests carried out by mixing sand and water and rotating the mix inside the pipe at high speed. The abrasion resistance time of HDPE is higher than that of all the other materials tested.

## HYDRAULIC COMPARISON

Comparison between the filling degree of a concrete pipe DN 1000 and a corrugated pipe DN 1000

- The corrugated pipes, despite having a smaller internal diameter, boast of the same hydraulic performance of concrete pipes, with equal capacity, even if the value of the filling degree of the former increases, it still remains within acceptable values.
- The DN of HDPE spiral wound pipes has the same net internal diameter of concrete pipes.
- Because of the reduced roughness of PE layers, it is able to retain the filling degrees of concrete pipes which is lower than those obtained inspiral wound pipes, with equal diameter and capacity.



## HYDRAULIC CALCULATION: SLOPE 1% ACCORDING TO STRICKLER-BAZIN-KUTTER METHODS

ID	Filling Pipe 25%		Filling Pipe 60%	
	Concrete (litres/sec)	HDPE (litres/sec)	Concrete (litres/sec)	HDPE (litres/sec)
200	4.47	5.66	22.77	27.95
300	13.52	16.78	68.18	82.25
400	29.55	36.19	147.87	176.41
500	54.05	65.56	268.98	318.36
600	88.4	106.42	437.95	515.25
800	191.62	228.15	942.65	1099.74
1000	348.41	411.61	1704.93	1977.81



**MAGNUM**  
Sewers & Stormwater



**BIG-DRAIN**  
Drainage

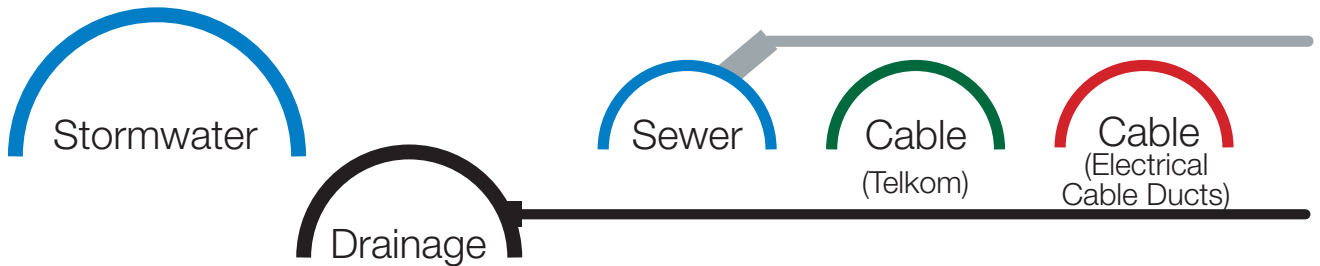


**FLEX-PRO**  
Cable Protection

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- Manufactured in South Africa
- Unbreakable
- Adaptable
- Recyclable



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