

# PVC PIPING SYSTEMS FOR HDD AND OTHER TRENCHLESS APPLICATIONS



**TerraBrute® CR**

M U N I C I P A L   S Y S T E M S

**AWWA C900 PRESSURE PIPE  
SYSTEMS FOR POTABLE WATER  
AND SEWER APPLICATIONS**

**100mm – 600mm  
4" – 24"**



**IPEX**

by aliaxis

**We Build Tough Products for Tough Environments®**

# TERRABRUTE® CR TRENCHLESS

## THE MISSING LINK IN YOUR TOTAL PVC PIPING SYSTEM

### TOTAL PVC PIPING SYSTEM ENGINEERED FOR HDD

Engineered for Horizontal Directional Drilling (HDD) and other trenchless applications, TerraBrute® CR is a 100% non-metallic, AWWA C900 PVC pressure pipe system. Non-corroding and installation friendly, TerraBrute CR allows you to standardize on PVC throughout your potable water and sewer infrastructure. Whether you're using open-cut or trenchless methods, there are no more problems matching materials and couplings.

### HIGHEST PULL STRENGTH AVAILABLE

Developed in consultation with leading trenchless technology research experts, and rigorously tested in the field, TerraBrute CR trenchless PVC pressure pipe easily withstands the high tensile and bending forces that occur during HDD and other types of trenchless installation.

TerraBrute CR's non-metallic "ring-and-pin" gasketed joint design outperforms all other restrained PVC pipe joints on the market, providing more than twice the pull strength of other HDD systems – up to 390,000 lbs. for 600mm / 24" pipe. Unlike competing square-shoulder designs, TerraBrute CR's rounded bell shoulders slide by roots, rocks and other debris that can protrude into the borehole. And unlike HDPE, TerraBrute CR requires no relaxation time before installation of fittings or services.

TerraBrute® CR is manufactured from pipe certified to the following standards:



B137.3



AWWA C900



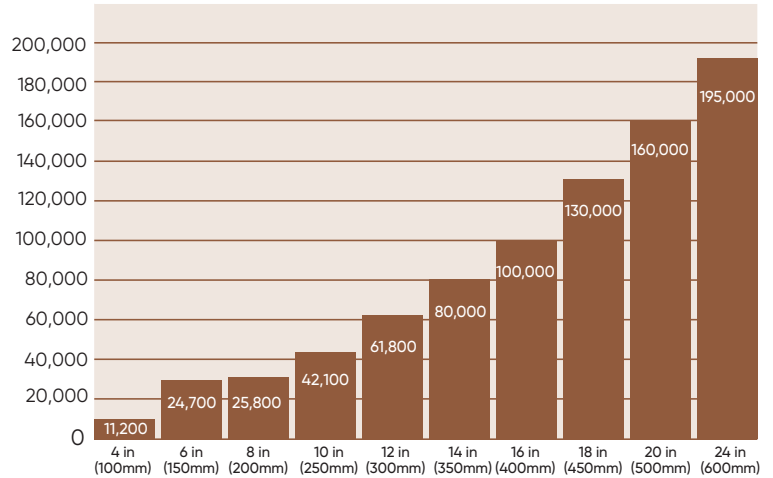
Std. 61



3624-250\*  
3660-950\*

\* For BQ Standards, not all sizes, pressure ratings, and manufacturing facilities are included in certifications.

TerraBrute CR Allowable Pulling Force (lbs)



These load values were calculated using a semi-empirical design method derived at the University of Western Ontario and verified by laboratory testing. A safety factor of 2:1 has been applied to account for the combined tensile and bending loads associated with HDD applications.

TerraBrute CR Pipe & Dimensions

Product Code	Nominal Diameter		Pressure Rating (2:1 safety factor) psi	Max outside Diameter (Bell OD)		AVG Internal diameter	
	in	mm		in	mm	in	mm
070258	4	100	305	6.49	165	4.09	104
070259	6	150	305	9.06	230	5.87	149
070260	8	200	235	11.33	288	8.03	204
070261	10	250	235	14.00	355	9.84	250
070262	12	300	235	16.36	416	11.69	297
070270	14	350	235	19.20	488	13.50	343
070271	16	400	235	21.60	549	15.35	390
070272	18	450	235	24.10	612	16.66	423
070273	20	500	235	26.80	681	18.46	469
070274	24	600	235	31.70	805	22.02	559

TerraBrute CR's larger internal diameters, compared to HDPE pipe, provide the same hydraulic performance usually with one size smaller pipe, saving on material costs.



TerraBrute CR is the result of many years of research into the use of PVC pipes in HDD applications. The new non-corroding, locking joint design enables TerraBrute CR to enter new applications while maintaining the high tensile strength and bending radius of the original TerraBrute.



Dr. Erez Allouche,  
Louisiana Tech University



## CORROSION RESISTANT

The new, non-metallic, "ring-and-pin" configuration of TerraBrute CR PVC pressure pipe offers complete corrosion resistance. The plastic "ring" is designed as two half rings for ease of installation and comes complete with the "pins" ready for insertion creating a strong, locking joint.

## PROVEN PERFORMANCE

Pressure rated in excess of 200 psi, TerraBrute CR delivers the superior strength and corrosion resistance you've come to expect from our Blue Brute pressure pipe, along with the ability to absorb the underground shear and flexure stresses that occur in buried applications.

## PROVEN COMPATIBILITY

TerraBrute CR trenchless PVC pipe is designed for total compatibility with your municipal system. Connections can be made with standard PVC CIOD fittings, direct tapped couplings or standard service saddles. Repair and handling techniques are the same as for any AWWA PVC pressure pipe.

## PROVEN JOINING SYSTEM

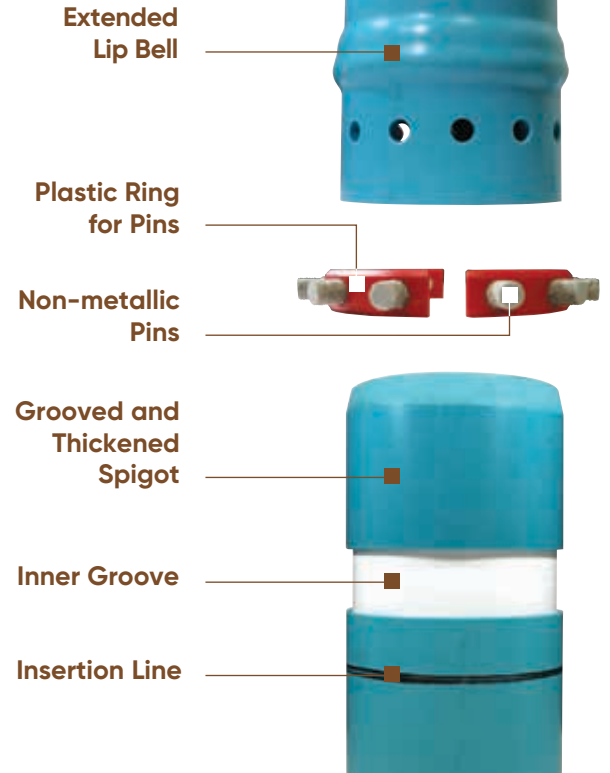
Based on our gasketed bell and spigot design, proven through years of service in the field, the TerraBrute CR joint is rated at many times the pressure rating of the pipe. And unlike competing coupling joints, the TerraBrute CR joint has been specially engineered to deliver the highest pull strength safety factors in the industry for HDD applications.

## FAST AND EASY JOINT ASSEMBLY

TerraBrute CR requires no expensive equipment or special installer training. Because pipe segments are assembled during pullback operations, pipe stringing is eliminated. Assembly time for a 300mm / 12" TerraBrute CR joint is typically less than five minutes.

# TerraBrute® CR

## NEW NON-METALLIC "RING AND PIN" GASKETED JOINT DESIGN



## IDEAL TERRABRUTE CR APPLICATIONS

### BRIDGE CROSSINGS

TerraBrute CR's unique "new non-metallic ring-and-pin" joint design provides for easy installation in non-HDD applications where traditional butt fusion techniques would be difficult – such as this span of suspended pressure pipe installed beneath a busy roadway bridge.



### ROAD CROSSINGS

TerraBrute CR is ideally suited for short drilling projects where existing structures cannot be disturbed – such as under busy highways, roads and intersections where you connect to PVC pipes.



### URBAN CENTERS

Because TerraBrute CR can be assembled segmentally just before entering the borehole, projects take up less space in restricted urban areas, compared to the long strings of pipe typical with conventional PVC and HDPE installations.



## SALES AND CUSTOMER SERVICE

IPEX Inc.  
Toll Free: (866) 473-9462  
ipexna.com

### About IPEX by Aliaxis

As leading suppliers of thermoplastic piping systems, IPEX by Aliaxis provides our customers with some of the world's largest and most comprehensive product lines. All IPEX by Aliaxis products are backed by more than 50 years of experience. With state-of-the-art manufacturing facilities and distribution centers across North America, we have earned a reputation for product innovation, quality, end-user focus and performance.

Markets served by IPEX by Aliaxis products are:

- Electrical systems
- Telecommunications and utility piping systems
- PVC, CPVC, PP, ABS, PEX, FR-PVDF and PE pipe and fittings (1/4" to 48")
- Industrial process piping systems
- Municipal pressure and gravity piping systems
- Plumbing and mechanical piping systems
- PE Electrofusion systems for gas and water
- Industrial, plumbing and electrical cements
- Irrigation systems

TerraBrute® CR manufactured by IPEX Inc.  
TerraBrute® CR is a trademark of IPEX Branding Inc.

This literature is published in good faith and is believed to be reliable. However, it does not represent and/or warrant in any manner the information and suggestions contained in this brochure. Data presented is the result of laboratory tests and field experience.

A policy of ongoing product improvement is maintained. This may result in modifications of features and/or specifications without notice.



BRMNTBIP220402R2C  
© 2023 IPEX MN0024C

