



# GRA SERVICES INTERNATIONAL

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## **Pull-Out Testing – ¾” through 6” HDPE Pipe PolyLok™ Pull-Out Tests Results with and without PE Scraping Tool**

Gentlemen,

PolyLok™ was tested at Standard Testing Laboratories in Oklahoma City to determine the bonding strength for the joining of two end sections of High Density Polyethylene Pipe with a standard PVC coupling. Test equipment was a Tinius Olsen Super L Universal Testing Machine, (Tensile Tester). Test specimens varied from ¾” to 6” diameter polyethylene pipe. Control values were established by using maximum rated pull-out strength for the standard mechanical coupling used extensively in the PE pipe industry. Test summaries are listed below.

Pipe Size	Mechanical Coupling		PolyLok™	PolyLok™
	Smooth Pipe Load, lbs.	Grooved Pipe Load, lbs.	without scraping tool Load, lbs.	with scraping tool Load, lbs.
¾”	No Value	No Value	<b>329</b>	
1”	125	250	<b>425</b>	
1 ¼”	135	270	<b>547</b>	
1 ½”	150	290	<b>580</b>	
2”	175	350	<b>755</b>	<b>1,015</b>
2 ½”	225	420	<b>1,095</b>	<b>1,420</b>
3”	290	520	<b>1,477</b>	<b>1,835</b>
4”	350	650	<b>2,101</b>	
5”	350	660	<b>2,529</b>	
6” (2” insertion depth)	200	300	<b>1,735</b>	<b>2,724</b>
6” (3” insertion depth)	200	300	<b>No Test</b>	<b>3,734</b>