



# TKP - AR

**Abration Resistant HDPE**

Multy-Layer Co-Extruded Pipe



WELCOME!

Technical Sheet



Designed for the most demanding conveying conditions in mining, metallurgy, dredging and other applications where fluids are high in solids that cause abrasion wear.



TKP-AR

## KEY ADVANTAGES

Beside the must known advantages of the PE pipe , we want to point out the following we have already improve with the use of TKP-AR pipe:

- ◆ The modified polymer of the inner wall of the pipe TKP-AR, allows the selection of the DR is carried out less overrated by prevention to the wear.
- ◆ Having a smaller wall thickness, the inside diameter increases, as well as the volume of the flow, the efficiency and productivity of the line.
- ◆ The pipe is lighter, easier to handle and install in the field.
- ◆ If you decide to maintain the DR of the pipe, the wear by abrasion is the half, therefore the life of the line increases to double.
- ◆ The frequency to rotate the pipe also decreases in half, consequently the cost and time invested for this process also decreases.

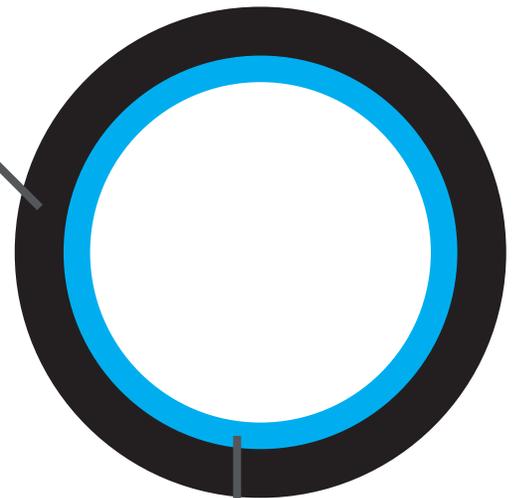


### **EXTERNAL LAYER**

PE-4710 WITH  
IDENTIFICATION  
WHITE STRIPES

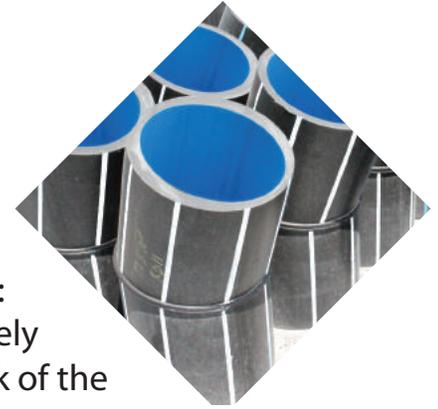
### **INNER LAYER**

POLYMERIC COMPOUND  
ABRASION RESISTANCE



# TKP-AR

## APPLICATIONS



The main application of the TKP-AR pipe is in the Mining Industry: Most of the uses of the PE pipe in the mining industry are extremely related with the pipe's ability to endure the strong abrasion attack of the fluids conveyed.

Slurries, Muds and even minerals in powder, are the most usual forms of the fluids and the extremely smooth internal surface of the PE-Pipe has always be an advantage in the working life of the pipe.

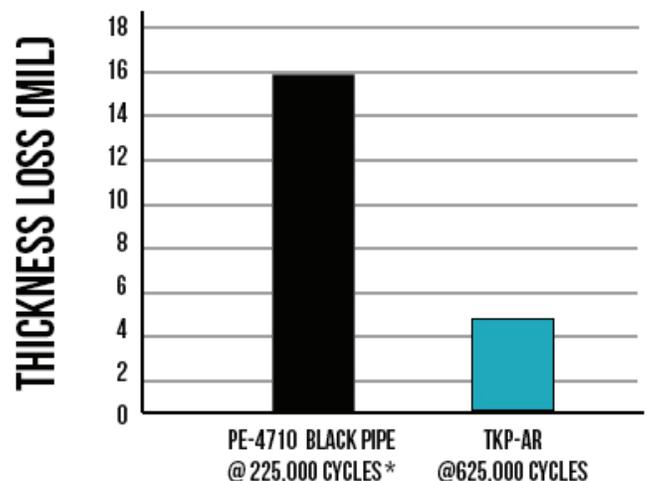
IPS SERIES		DR-9 PIPE			DR-11 PIPE			DR-17 PIPE		
IPS SIZE	AVG OD	Minimum Wall	Average ID	Weight	Minimum Wall	Average ID	Weight	Minimum Wall	Average ID	Weight
in	in	in	in	lb/ft	in	in	lb/ft	in	in	lb/ft
3	3.500	0.389	2.676	1.646	0.318	2.825	1.376	0.206	3.064	0.923
4	4.500	0.500	3.440	2.720	0.409	3.633	2.275	0.265	3.939	1.526
5	5.563	0.618	4.253	4.156	0.506	4.491	3.479	0.327	4.869	2.328
6	6.625	0.736	5.064	5.894	0.602	5.348	4.930	0.390	5.799	3.307
8	8.625	0.958	6.593	9.988	0.784	6.963	8.359	0.507	7.549	5.597
10	10.750	1.194	8.218	15.515	0.977	8.678	12.983	0.632	9.409	8.695
12	12.750	1.417	9.747	21.837	1.159	10.293	18.267	0.750	11.160	12.238
14	14.000	1.556	10.702	26.329	1.273	11.302	22.030	0.824	12.254	14.763
16	16.000	1.778	12.231	34.384	1.455	12.916	28.777	0.941	14.005	19.269
18	18.000	2.000	13.760	43.513	1.636	14.531	36.403	1.059	15.755	24.395
20	20.000	2.222	15.289	53.715	1.818	16.145	44.947	1.176	17.506	30.102

PE4710 pipe's life is several times the other materials pipe's life, like iron, steel, FRP, etc. The TKP-AR is been scientifically develop to last longer than the PE4710 or PE100 pipes, using the same working pressure, joining the pipe with butt fusion, and with the complete set of fittings.

# TKP-AR

## TECHNICAL TESTS

The development of the pipe, TKP-AR, is a combination of technical efforts between TKP and our world leader supplier of plastics. Our prototypes were carefully tested in the facilities of our world leader supplier, in Freeport Tx. After more than 600,000 cycles, TKP – AR pipe, show the following results compared to a standard PE4710 pipe:



\*The test was stopped due to the excessive loss of the pipewall



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contact us,  
we will be ready to help you

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