

DIFFERENTIAL FLOW CHARACTERISTICS OF CeRAM-KOTE INTERNALLY COATED PIPE

- a. Procedure: This test determines the fluid friction factor coefficient for pipe internally coated with CeRam-Kote. To calculate the friction factor coefficients for each piece, a standard pressure head loss test was carried out using water flow over an appropriate range of Reynolds numbers in the turbulent range.
- b. Prepared by: National Engineering Laboratory, East Kilbride, UK
- c. Date: September, 1995
- d. Test Panels: Two (2) pieces of 2 3/8", 4.6 lb/ft tubing. One piece was internally coated with CeRam-Kote and the other was internally shot blast cleaned.
- e. Results:

Flow Rate Litres/Sec [gal/min]	Friction Factor Coefficient "Shot Blast Test Piece"	Friction Factor Coefficient "CeRam-Kote Test Piece"	CeRam-Kote Percentage Improvement on Friction Factor
750 [47.31]	0.0233	0.0201	15.9%
2750 [173.47]	0.0218	0.0158	38.0%
3800 [239.70]	0.0236	0.0149	58.4%
4450 [280.71]	0.0243	0.0145	67.6%

Surface Roughness Measurement:

Shot Blast Cleaned Test Piece
CeRam-Kote Test Piece

Ra=7 micro metres [300 micro inches]
Ra= 0.4 micro metres [16 micro inches]