



MUNICIPEX VS. HDPE

MUNICIPEX[®] – THE PROVEN WATER SERVICE ALTERNATIVE

Crosslinked polyethylene (PEX) is a polyethylene (PE) material which has undergone a change in molecular structure in which polymer chains are chemically linked. This results in improved properties such as elevated temperature strength and performance, chemical resistance and resistance to slow crack growth.

<p>Longevity</p>	<ul style="list-style-type: none"> – Increased resistance to creep – Significantly improved and documented chlorine and chloramines resistance – Increased hydrostatic design basis (HDB) pressure at 180°F (82.2°C) – Excellent corrosion resistance – Excellent tuberculation resistance – Excellent erosion resistance
<p>Ease of Installation</p>	<ul style="list-style-type: none"> – Bends with a radius as tight as five times the pipe outside diameter (OD), compared to 25 times the OD for SDR 9 HDPE – Increased flexibility – Superior kink resistance; if kinks do occur, the high thermal memory of MUNICIPEX allows field repair of kinked pipe without adding joints or repair clamps – Water flow can be stopped by “pinching” the pipe using a polyethylene gas pipe squeeze-off tool with no restrictions; no need to cut out pieces of pipe or use repair clamps – Can be used with service saddles

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Toughness/Environmental Resistance	<ul style="list-style-type: none"> – Increased environmental stress crack resistance – Increased resistance to slow crack growth; results according to ASTM F1473 for “..Resistance to Slow Crack Growth ...” show that MUNICIPEX, when tested to same conditions as PE4710, had a 12 times longer test lifetime, correlating to superior resistance to slow crack growth – Increased elongation to break¹ – During pull-out testing, MUNICIPEX stretches more than 400% before breaking as compared to HDPE which typically tears at 40% elongation¹ – Remains flexible to below -40°F (-40°C); will not become brittle or break even at cold temperatures – High impact resistance – native backfill can often be used; does not crush, kink or collapse when proper backfill techniques are used, reducing the need for repairs and installation downtime – Excellent abrasion resistance- resists gouges and scratches from rocks and may be used in horizontal directional drilling applications
Standard Sizes and Dimensions	<ul style="list-style-type: none"> – CTS SDR9 dimensions ensure compatibility with C800 compression fittings – Reduces waste with 3/4 to 2 in. diameters in tight coils of 100 to 1,000 ft (30.5 to 304.8 m)

For more information about MUNICIPEX, visit www.municipex.com or contact your local REHAU representative.

¹When tested in an assembly using REHAU EVERLOC (ASTM F2080) brass fittings or AWWA C800 compression fittings with inserts.