Comparison Tests

Ceramapure PL90 vs Polyethylene with Fusion Bonded Epoxy Primer

Test	Ceramapure PL90	Polyethylene with Fusion Bonded Epoxy Primer
ASTM B 117 Salt Fog (Scribed Panel)	1 Year No Effect when rated using ASTM D-714	105 days – Test Terminated 7.0 mm Undercutting at scribe
ASTM G-95 Cathodic Disbondment (Attached Cell Method)	Less than 2 mm disbondment	6.2 mm average disbondment
DISTILLED WATER IMMERSION Awwa C-550 @ 150°F	Per AWWA C-550 Passed – 1 year No effect	102 days – No Effect
20% SULFURIC ACID IMMERSION	5500 hours No Effect when rated using ASTM D-714	2400 hours – No Effect
CHEMICAL RESISTANCE TESTING (Accidental discharge into Sewer)		
1. Strong Acids	Pass – 50% Sulfuric 30% Hydrochloric	Pass 50% Sulfuric 10% Hydrochloric
2. Strong Base	Pass – 50% Sodium Hydroxide	Pass – 25% Sodium Hydroxide
3. Strong Solvents	Pass – Gasoline, 111 Trichlorethylene, Methyl Isobutyl Ketone, Propylene Glycol, Toluene, Hi-Sol 15	Pass – Gasoline, Toluene(small swelling10%), Methanol (slight swelling 2%-8%).
4. Strong Oxidizer	Pass – 50% Hydrogen Peroxide	Pass-50% Hydrogen Peroxide
DEFLECTION OF LINED PIPE Test for Flexible Lining (Measure of Resistance to handling & earth loading damage	Allows for 5% deflection Safety factor greater than 2	Allows for 5% deflection Safety factor greater than 2

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IMPACT RESISTANCE ASTM G-14 (Measure of resistance to physical damage)	88 in/lbs	72 in/lbs
ABRASION RESISTANCE EN 598 Section 7.8 Abrasion Resistance of Sewerage Piping (Measure of wet abrasion in sewer)	Less than 3 mils loss after one million cycles. Allowable loss is 23 mils after one hundred thousand cycles, safety factor greater than 100.	Information not available
TOXICITY CHARACTERISTIC Environmental Protection Agency Test Method 1311	Pass	Information not available
5% Sodium Chloride Solution (Salt Water) Immersion Unscribed Panel	2 Years No Effect when rated using ASTM D-714	Information not available
5% Sodium Chloride Solution (Salt Water) Immersion Panel Scribed to Metal	2 Years No Effect when rated using ASTM D-714	Information not available
Undercutting Resistance: Alternate Wet/Dry Immersion (5% NaCl, flowing, aerated, 120°F, Wet 1 hour followed by Dry 1 hour-12 cycles daily	1 Year No undercutting at exposed edges.	Information not available
Weathering Exposure Coupons with cut edges exposed to ambient weathering conditions in Birmingham, AL	1 Year – Passed No undercutting at exposed edges.	Information not available.