

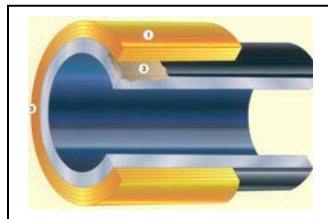
CLOCK SPRING®

Application Note Periodic Inspection of Above Ground Repairs

When a Clock Spring® is used to make an above-ground repair it must be covered with a protective coating. This coating serves two purposes; it protects the composite from Ultraviolet (UV) radiation and the adhesive from exposure to the air environment.

The isophthalic polyester resin used in the manufacture of the Clock Spring® repair will degrade slightly if exposed to UV radiation. This degradation affects only the outer surface of the repair and will appear as a chalky, dust like, substance on the surface of the composite. Since the repair is conservatively designed this degradation is more cosmetic than a technical issue. However, the Clock Spring® Installation Manual requires that above-ground repairs be covered with a protective coating.

In addition, the adhesive used in Clock Spring® repairs will oxidize and dry if exposed to sunlight and other above-ground environmental conditions. This may result in cracks in the adhesive at the edge of the repair and disbondment of the adhesive from the pipe outside the repair area. If the coating material also develops cracks, moisture can penetrate to the pipe surface. The adhesive under the repair or interlayer, within the repair will not be affected. Clock Spring recommends that above-ground repairs be inspected annually to ensure that the coating has not cracked or disbonded from the adhesive at the edges of the Clock Spring® repair. Coating failures can be repaired early.



Simply the smartest pipeline repair decision you can make!

**Clock Spring Company L.P. • 14107 Interdrive West • Houston, Texas, 77032
Telephone 281.590.8491 • 800.471.0060 • Fax 281.590.9528
Clock Spring UK • 4A The Causeway, Godmanchester, Huntingdon, Cambs, PE29 2HA, England
Telephone 011 44 1480 414 703 • Fax 011 44 1480 414 705
www.clockspring.com**