

## WHAT IS CREEP?

Creep is defined as the tendency of a polymer to distort under external loads over time. It is important to note that application thickness has a significant impact on overall project cost and return to service time.

The time to complete a project has an impact on by-pass costs as well as the constituents served by the infrastructure being repaired. Both monetary and social costs are relevant to solutions selected to repair aging infrastructure.

### SPRAYWALL

Short Term Flexural Modulus of Elasticity | **735,000 psi**

Creep Reduction Factor per ASTM D2990 | **28%**

Long Term Flexural Modulus of Elasticity | **529,200 psi**

Return to Service Time | **30-45 Minutes**

### OBIC 5000

Short Term Flexural Modulus of Elasticity | **470,000 psi**

Creep Reduction Factor per ASTM D2990 | **50%**

Long Term Flexural Modulus of Elasticity | **235,000 psi**

Return to Service Time | **10-12 Hours**

### RAVEN 405

Short Term Flexural Modulus of Elasticity | **700,000 psi**

Creep Reduction Factor per ASTM D2990 | **50%**

Long Term Flexural Modulus of Elasticity | **350,000 psi**

Return to Service Time | **5 Hours**

### WARREN 301

Short Term Flexural Modulus of Elasticity | **500,000 psi**

Creep Reduction Factor per ASTM D2990 | **50%**

Long Term Flexural Modulus of Elasticity | **250,000 psi**

Return to Service Time | **2-8 Hours**

| DEPTH OF WATER | SPRAYWALL | OBIC 5000 | RAVEN 405 | WARREN 301 |
|----------------|-----------|-----------|-----------|------------|
| 5'             | 386 MILS  | 505 mils  | 443 MILS  | 495 MILS   |
| 10'            | 485 MILS  | 634 mils  | 558 MILS  | 621 MILS   |
| 15'            | 555 MILS  | 725 mils  | 636 MILS  | 710 MILS   |
| 20'            | 610 MILS  | 796 mils  | 699 MILS  | 780 MILS   |

*Note: All calculations based on Long Term Flexural Modulus of Elasticity with a 48" diameter manhole.*