

General Practices & Procedures Waterstop



CS-231 is designed for use in precast concrete joints and poured-in-place joints – commonly referred to as cold joints. For use in precast concrete joints, CS-231 should be used in place of preformed, rubber gaskets in compression joints only when necessary. Typical precast concrete applications are: Manholes, Concrete Vaults, Septic Tanks, Concrete Pipe, Box Culverts, Utility Vaults, Burial Vaults, and Vertical Wall Panels.

NOTE: In most cases ConSeal CS-102 Butyl Rubber Sealant will provide a watertight seal for precast concrete. Only in special applications is CS-231 Controlled Expansion Waterstop Sealant recommended.

CS-231 has many applications for cold joints. CS-231 can be used in any concrete cold joint, given a minimum of 2" concrete cover. Typical cold joint applications are: Double Pours of Concrete, Containment Structures, Concrete Slabs, Bridge and Deck Abutments, Wall or Floor Penetrations, Tunnels, and Retaining Walls. Each of the subsections to follow details the use of CS-231 in the most common applications. For some applications a primer may be necessary to hold CS-231 in place. Suggested primers for CS-231 are CS-50 Liquid Butyl Primer or CS-75 Water-Based Adhesive Surface Primer. For more information on ConSeal Primers contact Concrete Sealants Inc.

General Applications

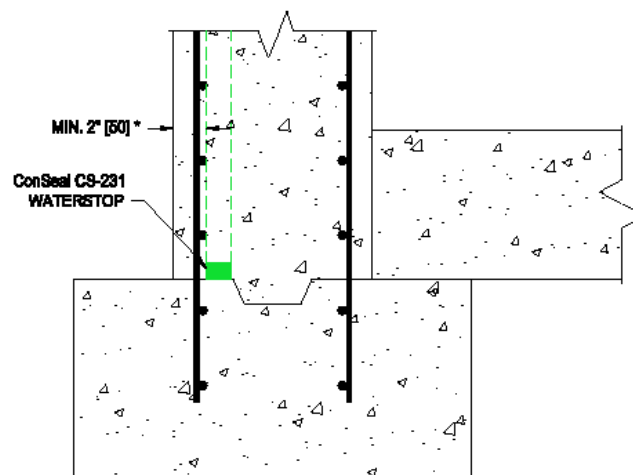
ConSeal's CS-231 is designed for use in the following general applications: both vertical and horizontal concrete construction joints, between dual concrete pours, between new and existing concrete, sealing irregular surfaces, and around through-wall penetrations for plumbing and utility pipe. ConSeal CS-231 is not designed, nor intended to function as an expansion joint sealant. For use of CS-231 with precast concrete applications please contact Concrete Sealants Inc. for technical information and approval.

Minimum concrete requirements for use of ConSeal's CS-231 Controlled Expansion Waterstop Sealant are a structural concrete with a minimum of 3000 psi and a minimum 2" (50mm) of concrete coverage.

Foundation Slab

The following images are recommended joint detail for use of CS-231 for all foundation slab applications. The minimum concrete requirements must be met to ensure the performance of CS-231. Those requirements are a structural concrete with a minimum of 3000 psi and a minimum 2" (50mm) of concrete coverage.

Image 1. CS-231 in Joint of Footer and Wall of Foundation



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Image 2. CS-231 in Joint of Foundation Footer/Wall and Footer/Floor

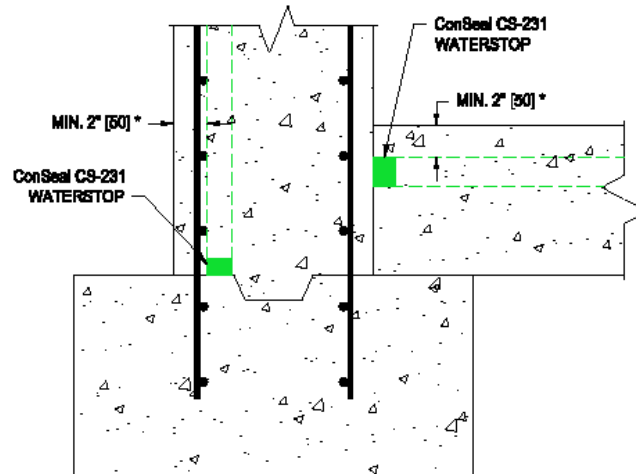
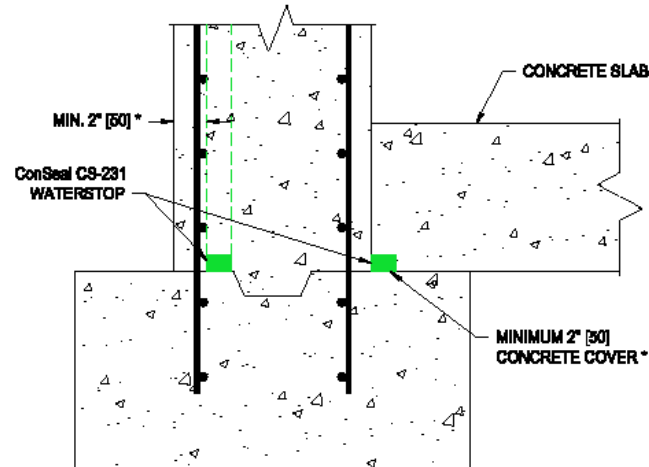


Image 3. CS-231 in Joint of Foundation Footer/Wall and Footer/Floor, Second Option



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Image 4. CS-231 in Slab Section Joints

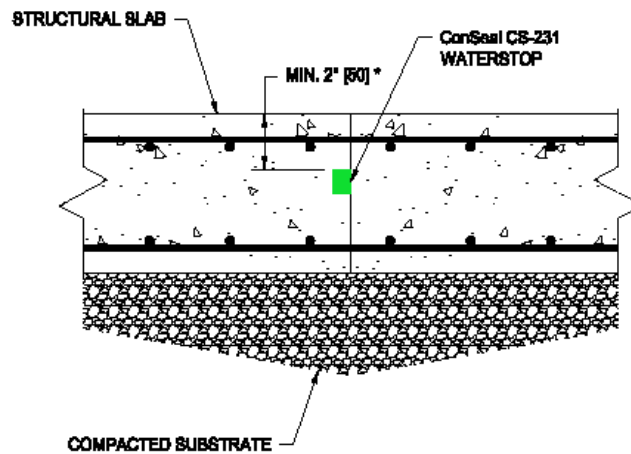
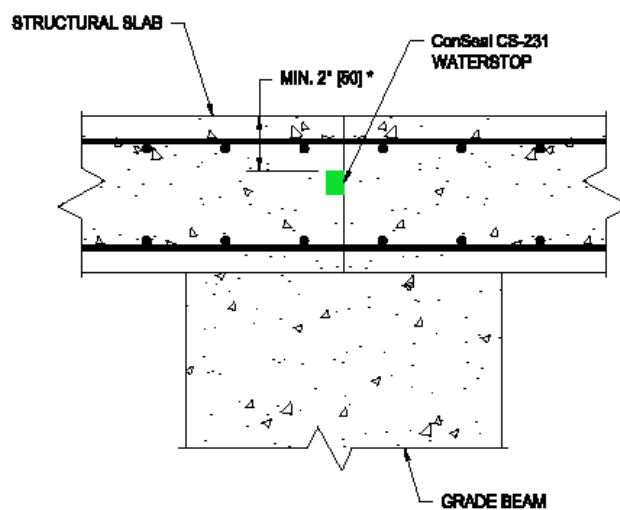


Image 5. CS-231 in Slab Section Joints with Grade Beam Present



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Pipe Penetration

The following images are recommended joint detail for use of CS-231 for all pipe penetration applications, for application of CS-231 on PVC or metal pipe use primers from Concrete Sealants Inc. Suggested primers are CS-50 Liquid Butyl Primer or CS-75 Water-Based Adhesive Surface Primer. For more information on ConSeal Primers contact Concrete Sealants Inc. The minimum concrete requirements must be met to ensure the performance of CS-231. Those requirements are a structural concrete with a minimum of 3000 psi and a minimum 2" (50mm) of concrete coverage.

Image 6. CS-231 on Pipe Penetration, Detail for Either Wall or Floor Slab

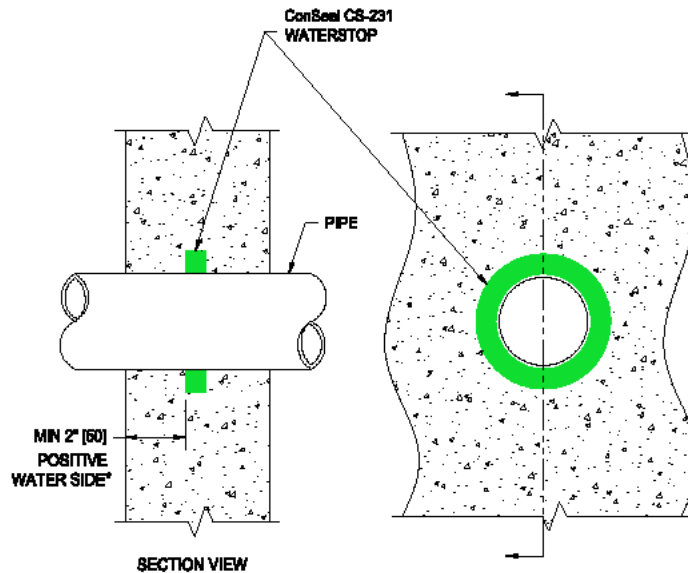
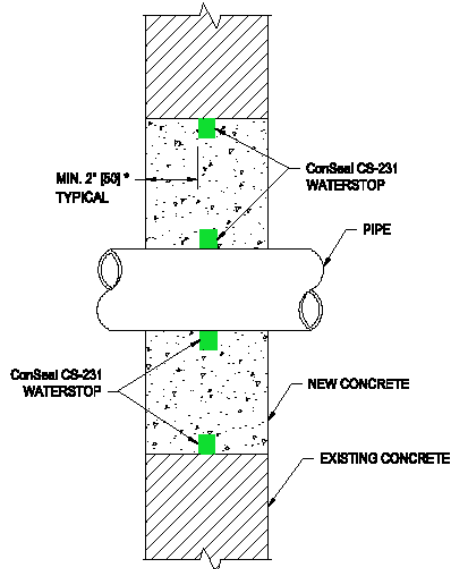


Image 7. CS-231 on Pipe Penetration with Additional Joint Between New and Existing Concrete



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Pile Caps and Grade Beams

ConSeal's CS-231 will help prevent rusting of metal structural beams by keeping water from coming into contact with the metal. For optimal use, place CS-231 at any points where water can initiate contact with the metal. This application is primarily for steel that will be encapsulated by concrete. The following images are recommended joint detail for use of CS-231 for pile cap or grade beam applications, for application of CS-231 on metal use primers from Concrete Sealants Inc. Suggested primers are CS-50 Liquid Butyl Primer or CS-75 Water-Based Adhesive Surface Primer. For more information on ConSeal Primers contact Concrete Sealants Inc. The minimum concrete requirements must be met to ensure the performance of CS-231. Those requirements are a structural concrete with a minimum of 3000 psi and a minimum 2" (50mm) of concrete coverage.

Image 8. CS-231 Protecting H-Pile

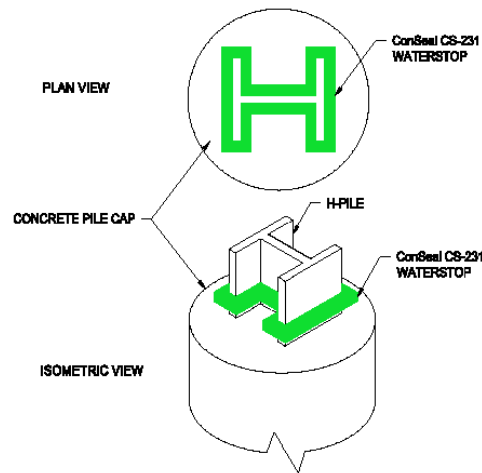
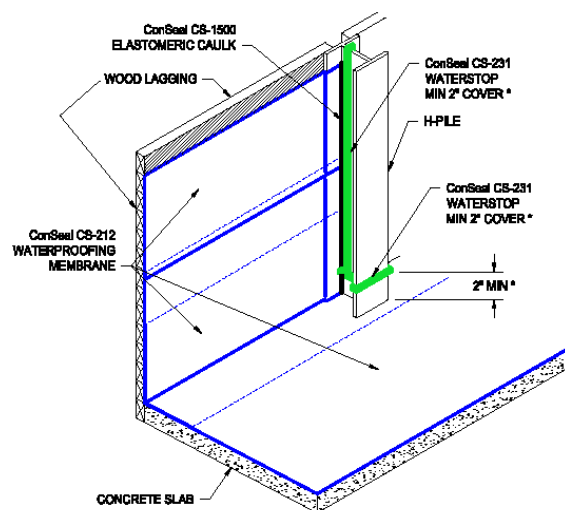


Image 9. CS-231 on H-Pile with use of CS-212 Waterproofing Membrane and CS-1500 Elastomeric Caulk



NOTE: Contact Concrete Sealants Inc. for Information on CS-212 and CS-1500.

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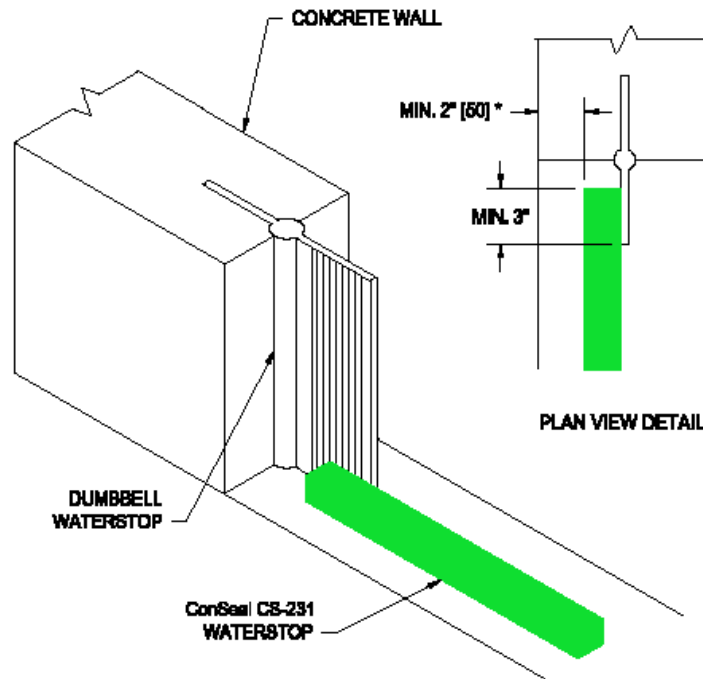
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Use with PVC Waterstops

The following image is recommended joint detail for use of CS-231 for all applications with PVC Waterstops. The minimum concrete requirements must be met to ensure the performance of CS-231. Those requirements are a structural concrete with a minimum of 3000 psi and a minimum 2" (50mm) of concrete coverage.

Image 10. CS-231 in Conjunction with PVC Waterstops



Disclaimer: This publication is to assist users to understand the proper use of ConSeal's products. *Contact ConSeal's technical staff for practices and procedures that meet your specific requirement.* Concrete Sealants, Inc. does not warranty any improper use of its products.

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