

Cold Joint



Structural Guide

What is Cold Joint in Concrete

A cold joint is a joint that is formed between two pours of concrete when the second concrete pour is placed after starting the setting of the first pour.

After the initial setting time of the concrete, concrete starts setting. When new concrete is poured after that there will be a separation in the layers.



Cold Joint and Construction Joint

Cold Joint Concrete

Form due to a construction error

Inadequate bonding could be observed

There could be strength issues

Could be avoided with best construction practices

Construction Joint

Construction joints are created intentionally where required.

Unless poor construction practices, but there are no such issues.

There will not be such issues.

Place as required by construction.

Key Facts about Cold Joints

Lack of Bonding

Reduce the strength and durability of the structure

Water leaks

Deterioration of concrete

Tensile failures

Aesthetic appearance

How to Prevent Cold Joints

Concrete pouring sequence
Setting time



How to test Cold Joints

Ultrasonic Pulse Velocity Test.
Impact Eco
Rebound Hammer Test



Thank you



Structural Guide

Civil & Structural Engineering Knowledge Base