

# Guidance Note

## Step Joint Size in Precast Panels

### Introduction

This Guidance Note aims to clarify the use of stepped (or ship-lapped) joints in precast concrete panels.

This detail is particularly effective for external facades as it creates an additional weatherproofing barrier – a geometric backup - for potential rainwater ingress.

While earlier publications such as National Precast’s “Precast Concrete Handbook”, Edition 2, and “Details for Buildings” notate 50mm as a typical dimension (and even 75mm in some instances) for the step upstand, a 35mm upstand has become increasingly used over the last twenty years.

A 35mm upstand minimises chances of the upstand cracking or chipping during handling and installation, and assists with the design of narrower, loadbearing panels.

Stepped (or ship-lapped) joint details – as either 50mm or 35mm - have been successfully employed in a multitude of projects and there are no known weatherproofing issues arising from either detail.

### Applicability

The 35mm step joint can be engineered for use on both load-bearing and non-load-bearing panels.

### Sealing

1. External Face: This should be sealed with caulking and a backing rod.
2. Internal Face: This should be sealed with caulking and a backing rod if non-load-bearing, or fully grouted if load-bearing (as detailed by the project consultants).