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# ***SG PAM UK 'Install Plus' Carriageway Frame and Cover Levelling System***

*Install Plus F/C Levelling*

## ***About this document ...***

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### **Content approval**

This is the Issue 4 of this document.

The information contained in this document was approved on 19-Apr-2021  
by Andrew Debbage, Senior Manager, Civils Field Projects & Cost  
Avoidance

## Version History

Version No.	Date	Author	Comments
Issue 4	19-Apr-2021	Carl Morrell	Section 1 updated with mortar colour change info
Issue 3	25-Mar-2021	Carl Morrell	Section 1.1, specification and checklist updated
Issue 2	02-Sep-2020	Carl Morrell	Correction to attachments - no change
Issue 2	30-Dec-2019	Carl Morrell	Change of author and approver
Issue 1	29-Jan-2019	Openreach Chief Engineer Documentation Team	New Document

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# 1 *Introduction*

SG PAM UK Install Plus is a new carriageway frame and cover levelling system which is designed to prevent the need to serially re-visit sites to replace failing frame and covers. i.e. noisy covers or failed reinstatements.

It will improve the installation of carriageway ironwork by minimizing manual handling and reducing overall time onsite.

Along with our reinstatement Bedding mortar supplier, Instarmac, an installation method has been designed that if followed should provide a right first time solution, and importantly, reduce time for the frame and cover install and its final reinstatement.

One of the key innovations of Install Plus is the integral levelling system which helps to both support the frame and achieve accurate alignment with the surrounding road surface.

All current E600 carriageway (CW) frame & covers are now manufactured incorporating the Install Plus frame levelling system for CW No.1, 2 and 3. D400 CW No.4 is also available with Install plus

A GripTop non-slip cover variant is available on special order. The E600 & D400 carriageway covers meet BS EN124 category loadings of 60 tonnes and 40 tonnes respectively.

It is mandatory for carriageway frames to be levelled using the new InstallPlus system and Flowable materials; Only Instarmac Envirobed-Red CD534 (formerly HA104) cementitious Flowable and Bedding mortars are approved for use with InstallPlus.

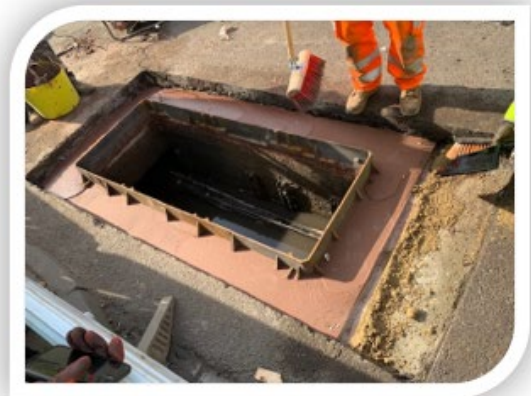
As of 26<sup>th</sup> April 2021 the colour of the Instarmac Envirobed Flowable and Bedding mortars became RED (known as "Envirobed-Red") with the packaging updated to reflect this. This change was made to ensure that the correct products are being used as part of a carriageway frame and cover installation and that it is easily auditable. There is no change in the performance or cost of the product, only the colour is different.

**Please note:** From the 26<sup>th</sup> April 2021 only Instarmac Envirobed-Red flowable and damming mortars should be purchased and used for the installation of carriageway frame & covers. There will likely be a ~3 month transition period from this date where the old Envirobed stock will need to be used up and the new Envirobed-Red product is used. There is no issue with using a combination of Envirobed & Envirobed-Red during this transition period.



*Old Envirobred Flowable Mortar*



*New Envirobred-Red Flowable Mortar*



## 1.1 Install Information

SG PAM 'Install Plus'	<a href="#">Manufacturers Brochure</a>
Manufacturers YouTube Link	<a href="#">Install Plus Youtube Video</a>
ENVIROBED HA104® Flowable High Performance Bedding Mortar	<a href="#">ENVIROBED HA104</a>
ENVIROBED HA104®: High Performance Bedding Mortar	<a href="#">Bedding Mortar</a>
Installation Specification	 Installation Specification.pdf
Material Checklist	 Material Checklist.pdf

## 1.2 Stores Lists

BT Code to include Install Plus	Saint-Gobain PAM Code Install Plus	Item to include Install Plus (New Description Required)	Size (mm)	Class
<b>E600 Units</b>				
095665	259871	Carriageway 1 - Install Plus	610 x 610 x 150	E600
095666	259872	Carriageway 2 - Install Plus	1220 x 685 x 150	E600
095667	259873	Carriageway 3 - Install Plus	1840 x 685 x 150	E600
095668	259874	Carriageway 1 Lockable Install Plus	610 x 610 x 150	E600
095669	259875	Carriageway 2 Lockable Install Plus	1220 x 685 x 150	E600
095670	259876	Carriageway 3 Lockable Install Plus	1840 x 685 x 150	E600
<b>D400 Units</b>				
095671	259877	Carriageway 4 - Install Plus	915 x 445 x 150	D400
095672	259878	Carriageway 4 Lockable Install Plus	915 x 445 x 150	D400

#### Bedding Materials

Instarmac Product Code	Description	Unit Weight	Units per pallet
Instarmac 18B	CD534 compliant cementitious bedding mortar	18kg tub = 2x 8kg bags and 2x 1ltr polymer bottles	40
Environbed Flow	CD534 compliant cementitious flowable bedding mortar	18kg bag and 2.5 ltr polymer bottle	48

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