



Method Statement

Ref. #: DCP00/07-0075-A-2022



Donseal CJ100

(Semi-flexible epoxy control joint filler)



Table of Content

SECTION A: GENERAL COMMENTS	3
General Notes	3
High-Temperature Working	3
Low-Temperature Working	3
Tools and Equipment	4
SECTION B: APPLICATION	5
Substrate Preparation	5
Mixing	5
Placing	5
Cleaning	6
Remarks	6
SECTION C: CAUTIONS	7
Health & Safety	7
SECTION D: APPROVAL AND VARIATIONS	7



Section A : General Comments

General Notes:

The information below is a detailed overview of the application of DCP's **Donseal CJ100** and should be read in conjunction with the relevant technical data sheet prior to application. All DCP Products should be applied by experienced specialist contractors.

All the points below assume the correct preparation of the relevant surface.

High-Temperature Working:

It is suggested that, for temperatures above 35°C, the following guidelines are adopted as good working practice:

- i. Unmixed materials and equipment should be stored in a cool shaded area and away from direct sunlight.
- ii. High temperatures will accelerate the gelling time and shorten the pot life of the product. Avoid application during the peak temperature of the day.
- iii. Plan for enough materials, tools, and labor to ensure a continuous applicant process.

Low-Temperature Working:

It is suggested that, for temperatures below 10°C, the following guidelines are adopted as good working practice:

- i. Unmixed materials should be stored in a warm (preferably temperature-controlled) environment, avoiding exposure to frost or temperatures below 5°C.
- ii. Cool temperatures will slow down the setting time. Avoid application if the temperature is around 5°C and falling.

Tools and Equipment:

It is suggested that the following list of equipment are adopted as a minimum requirement

Personal protection

- : Protective overalls
- : Goggles or a face mask
- : Good quality gloves
- : Safety shoes
- : Safety helmet



Equipment

- : Mixing drill (Fig.1)
- : Mixing paddle (Fig.2)
- : Empty bucket (25 ltr) (Fig.3)
- : Backing rod [if required] (Fig.4)
- : Barrel gun (Fig.5)
- : Masking tape (Fig.6)
- : Stiff wire brush (Fig.7)
- : Floor razor – Blade (Fig.8)
- : Heating gun or torch (Fig.9)
- : Air blower (Fig.10)



Fig.1: Mixing drill



Fig.2: Mixing paddle



Fig.3: Empty bucket



Fig.4: Backing rod



Fig.5: Barrel gun



Fig.6: Masking tape



Fig.7: Stiff wire brush



Fig.8: Floor razor – Blade



Fig.9: Heating gun or torch



Fig.10: Air blower

Section B : Application

1.0 Substrate Preparation

- 1.1 The joint must be completely clean and structurally sound. Remove all coatings, oils, waxes, curing compounds, laitance and any other foreign matter which could prevent good adhesion.
- 1.2 Substrate should be dry or damp, but free of standing water.
- 1.3 Brush away any surface laitance, dust or loose aggregates.
- 1.4 In old concrete, the old joints must be routed out to remove old material and widen, if necessary.
- 1.5 Blow clean compressed air to blow out any remaining dust or debris prior to application.

2.0 Mixing

- 2.1 **Donseal CJ100** comprises of two components, a resin base, and a hardener, which is supplied in 1:1 proportions by volume.
- 2.2 Condition **Donseal CJ100** components at a temperature between 20 - 25°C before use.
- 2.3 Pre-mix the content of each component (BASE, HARDENER) thoroughly before using for 1 – 3 minutes until a consistent colour is achieved.
- 2.4 Proportion equal parts by volume of the BASE and HARDENER into clean bucket.
- 2.5 Mix thoroughly using a low-speed (400 – 600 rpm) drill fitted with a proper mixing paddle for approximately 3 minutes or until a uniform colour is obtained.
- 2.6 Mix only the quantity of epoxy that can be applied within its gel time.



Note: Consumption in Joints (Linear meter per 1 litre, including 10% wastage):

Width Depth	3 mm	5 mm	10 mm	15 mm	20 mm	25 mm
10 mm	30.0	18.0	9.0	6.0	4.5	3.6
15 mm	20.0	12.0	6.0	4.0	3.0	2.4
20 mm	15.0	9.0	4.5	3.0	2.2	1.8
25 mm	12.0	7.2	3.6	2.4	1.8	1.4
30 mm	10.0	6.0	3.0	2.0	1.5	1.2
35 mm	8.5	5.1	2.5	1.7	1.2	1.0
40 mm	7.5	4.5	2.2	1.5	1.1	0.9
45 mm	6.6	4.0	2.0	1.3	1.0	0.8
50 mm	6.0	3.6	1.8	1.2	0.9	0.7

3.0 Placing

- 3.1 Install a backing rod if the joint depth exceeds 5 cm, limit the depth of the joint filler to 5 cm.

Note: In accordance with ACI 302, semi-rigid epoxy fillers should be installed at full depth in saw-cut joints and at least 2.5 cm deep in formed joints.



- 3.2 You may apply a thin layer of dry clean sand (6 - 7 mm) to prevent the flow of joint filler into the shrinkage cracks that occur at the bottom of control joints.
- 3.3 Using the masking tape, mask off each side of the joint to maintain clean and uniform joint sides.
- 3.4 Within 40 minutes (@ 25°C) from mixing, apply the mixed **Donseal CJ100** to the prepared joint.
- 3.5 Load the material into the barrel gun and dispense into the joint with a steady flow to eliminate overlapping of material.
- 3.6 Alternatively, pour the mixed material using a suitable container.
- 3.7 Apply **Donseal CJ100** generously, two passes may be required as the material will settle in the joint. The second pass must be made within 12 hours at 25°C.
- 3.8 Another method of application is to overfill the joint so that the material should overflow out of the joint and form a ridge during the initial installation.
- 3.9 An industrial heating gun or torch may be required to soften cured resin before shaving. Apply heat for 10 - 15 seconds to soften cured resin.

*Note: Best practice is to allow **Donseal CJ100** to cure overnight (around 24 hours) before shaving.*

- 3.10 Level and smooth the surface by shaving flush the excess material using a sharp floor razor or blade so that the top surface is flush with the surface of the concrete that defines the control joint.

Note: Shaving at a lower angle to the surface may produce better results.

- 3.11 Remove the masking tape directly after the material settles in the joint.
- 3.12 If concrete shrinkage-related openings do occur, reapply **Donseal CJ100** and strike flush with a sharp razor.

Note: ACI 302 recommends filling and sealing of the joint be deferred as long as possible to minimize the effects of shrinkage-related joint opening on the filler or sealant.

4.0 Cleaning

- 4.1 Use **DCP Solvent** to clean the tools immediately after finishing, hardened material should be removed mechanically.

5.0 Remarks

- 5.1 **Donseal CJ100** should not be used when the ambient temperature is below 5°C and falling.
- 5.2 Do not thin **Donseal CJ100**. The addition of solvents may prevent a proper cure.
- 5.3 For best results, materials should be maintained between 20 – 25 °C during application.
- 5.4 **Donseal CJ100** is not designed for use in expansion (moving) joints. For application in non-moving joints only.
- 5.5 As a general rule, gel time will be cut in half for each 10°-15° increase in temperatures above (25°C).
- 5.6 **Donseal CJ100** should be installed at full depth when sealing construction/control joints.
- 5.7 The longer the time period allowed for curing of the concrete prior to installation of **Donseal CJ100**, the better the performance. ACI 302.IR recommends a minimum of 3 months for all semi-rigid epoxies.
- 5.8 Shaving the joint filler before it has reached proper hardness may result in a filler profile that is not flush with the concrete floor.



- 5.9 Epoxies may yellow or discolor upon exposure to strong sources of UV radiation such as sunlight, and some types of industrial artificial lighting. However, this will not heavily affect the performance of the material.

Section C : Cautions

Health and safety

Donseal CJ100 is irritation to skin, eyes, and respiratory system. Wear suitable gloves and eye protection.

Fire:

Donseal CJ100 is nonflammable.

For further information on refer to the Material Safety Data Sheet.

Section D : Approval and Variations

This method statement is offered by DCP as a 'standard proposal' for the application of **Donseal CJ100**. It remains the responsibility of the Engineer to determine the correct method for any given application. Where alternative methods are to be used, these must be submitted to DCP for approval, in writing, prior to commencement of any work. DCP will not accept responsibility or liability for variations to the above method statement under any other condition.