

Certificate of Test

**Title: Determination of Methane
Permeability of the Solcourse
Gas Resistant DPC**

Certificate of Test Number: 15099

Client's Name & Address:

Solco
Unit 51, Portmanmoor Road Ind. Est.
Ocean Park
Cardiff
CF24 5HB

Our Ref: N950-TMV056

TC Job No: 3PK7 – 1.287.02

Your Ref: PO No. 1879

Date: 17 November 2011

Date sample received: 21 April 2008


Sample received from: Solco


Sample No: 144649/1

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TC-N950-TEMP-077A



1. INTRODUCTION

This certificate of test describes methane permeability testing carried at the request of Solco on 17 April 2008 at Technology Centre (TC), Leighton Buzzard.

2. SAMPLE DESCRIPTION

Technology Centre received one sheet of Solcourse Gas Resistant DPC (TC Ref 144649), described by the client as a Gas Resistant Polymeric High Performance DPC. The sheet was given unique TC sample number for reference purposes only.

3. TEST PROCEDURE

The testing was carried out in general accordance with "Rilem Report 12, Performance Criteria for Concrete Durability, E & FN Spon, London, UK pp 226 – 230"

Test procedure involves pressurising one face of the sample at approximately 0.2bar above atmospheric pressure with 100% methane, and measuring any flow rate passing through the sample.

4. TEST RESULTS

The results for the testing are contained in Table 1 below.

METHANE GAS PERMEABILITY RESULTS

Table 1

Client Reference	TC Ref	Specimen Thickness* (m)	Exposed Area (m ²)	Methane Gas Permeability (\bar{K}_g) (ms ⁻¹)
Solcourse Gas Resistant DPC	1444649/1	9.02 x10 ⁻⁴	5.06 x10 ⁻³	1.16 x10 ⁻¹⁴

Date of test: 17 April 2008

Note: Gas flow was less than 0.01ml in one hour, which is lower than our detection limit.

Although there is no recognised specification for Methane Gas Permeability, the figure quoted above, based upon the method quoted above, indicates that Solcourse Gas Resistant DPC acts as an impermeable barrier to methane, due to the amount of gas detected being lower than the detection limit of the equipment used.

For this test method, the results gained for Methane gas can be also used for Radon gas, therefore Solcourse Gas Resistant DPC acts as an impermeable barrier to Radon gas.

END OF CERTIFICATE