

Certificate of Test

Title:

JOTUN U.A.E. LIMITED

FENOMASTIC GOLD

Determination of Crack Bridging Ability

Certificate of Test No: **5505**

Client's Name & Address:

**Jotun U.A.E. Limited
PO Box 3671
Dubai
United Arab Emirates**

Our Ref:	231S/ATB/JM/2287
TEL Job No:	6729
Your Ref:	-
Date:	13 th April, 1999
Date Sample(s) Received:	10 th February, 1999
Sample(s) Received From:	Mr S Mathew

Sample No(s): **125231**

Tested By:..... *S Stoute* S Stoute

Authorised By:..... *A T Blake* A T Blake

for

TAYWOOD ENGINEERING

CONSULTANTS IN DESIGN AND TECHNOLOGY

Technology Division

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1. SAMPLE DESCRIPTION

One litre of Jotun Fenomastic Gold was received by the Analytical Laboratories.

2. ANALYSIS REQUESTED

The Analytical Laboratories were requested to determine the crack bridging ability of a coated concrete slice.

3. METHOD

3.1 Preparation

Test specimens measuring 75 x 50 x 15mm were cut from a standard C40 concrete mix. As a crack propagator, the rear of the sample was cut to within 2mm of the front face at the centre of the specimens. The coating system was then brush applied onto the concrete slices using a weighing procedure to achieve the coverage rate required. Two coats of Fenomastic Gold were applied at 220g/m² with a minimum drying time of four hours between coats.

The coated specimens were conditioned at 23 + 2°C and 60 + 5%RH for a minimum period of 3 weeks prior to testing.

3.2 Crack Bridging Ability

A plastic plate (approximately 20mm wide) was adhered to the front of the coated sample, leaving approximately 1cm free either side of the centre of the specimen. A crack was then initiated from the rear of the specimen by gently widening the slot cut in the rear of the sample. This produced a microscopic crack in the concrete along the coated face. The sample was then carefully placed in an Instron tensile testing instrument, model no. 1195, and the sample tested under tension until the first defect was noted in the coated face. The width of the crack was then measured in 4 locations using a measuring graticule. A defect was classed as a pin hole or opened stretch mark. The outside edges of the sample were not examined for defects, due to edge effects that may occur. The tensile tester cross head movement rate was set at 0.5mm/min. All testing was undertaken at 23°C and ambient humidity conditions.

4. RESULTS

The crack bridging ability of Jotun Fenomastic Gold has been determined as up to 1mm.

The results of the analysis are detailed in Table 1.

CRACK BRIDGING ABILITY

FENOMASTIC GOLD

Table 1

SAMPLE NUMBER	EXTENSION WHEN DEFECT FIRST NOTED (mm)				AVERAGE EXTENSION (mm)
	1	2	3	4	
125231/11	1	1	1	1	1.0
125231/12	0.9	0.9	0.9	0.9	0.9
125231/13	1	1	0.9	0.9	1.0
125231/14	0.8	0.8	0.8	0.8	0.8
125231/15	0.8	0.8	0.8	0.8	0.8
Average Extension					0.9

Date tested: 25.03.99.