

Building Research Advisory Service

job number: P850642 PR 118/019

date: 30 April 1986

LABORATORY DETERMINATION OF THE MOULD RESISTANCE OF FUNGICIDAL COATINGS

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METHOD: Flat panel/humidity cabinet (Bravery et al, 1981)

for Director
Building Research Establishment



BUILDING
RESEARCH
ESTABLISHMENT

Department of the Environment

Building Research Advisory Service

Princes Risborough Laboratory

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DEPARTMENT OF THE ENVIRONMENT
BUILDING RESEARCH ESTABLISHMENT
PRINCES RISBOROUGH LABORATORY

BRE Project No: PT 241
PRL File Ref: PR 118/019
BRAS Job No: P850642
Bio Job No: 86101

Biodeterioration Section

TEST REPORT

LABORATORY DETERMINATION OF THE MOULD RESISTANCE OF FUNGICIDAL COATINGS

METHOD: Flat panel/humidity cabinet (Bravery et al, 1983).

MATERIALS TESTED: 1 Biocheck Fungicidal Emulsion Paint CODE: P26
2 PRL Susceptible Control Paint.

SUPPLIERS: Material 1 - Mould Growth Consultants Ltd (Mr A Ellis)
Material 2 - PRL

DILUENT: None, used as supplied

SUBSTRATE: Masterboard panels 100 x 75 x 6 mm

REPLICATES: 3 per paint

APPLICATION: Brush-applied in two coats

PRE-CONDITIONING: None

TEST FUNGI:	Aspergillus versicolor	IMI 45554
	Aureobasidium pullulans	IMI 45533
	Cladosporium cladosporioides	IMI 178517
	Penicillium purpurogenum	IMI 178519
	Phoma violacea	IMI 49948ii
	Rhodotorula glutinis var dairensis	PRL S-1056
	Sporobolomyces roseus	NCYC 717
	Stachybotrys chartarum	IMI 82021
	Ulocladium atrum	IMI 79906

INOCULATION: Approximately 1 ml mixed spore suspension of test fungi in 0.05% Aerosol OT wetting agent spray- applied to each test surface ($>10^5$ spores ml⁻¹).

DURATION: Assessments of mould growth reported after 12 weeks' incubation.

RESULTS: See Table 1 and Plate 1.

TABLE 1

MOULD GROWTH ON PAINTED TEST PANELS AFTER 12 WEEKS' EXPOSURE
IN A HIGH HUMIDITY TEST CABINET

PAINT	RATING	OBSERVATIONS
Biocheck Fungicidal Emulsion Paint	0	Completely free of mould growth
PRL Susceptible Control Paint	5	Extensive and heavy overgrowth of moulds

OBSERVATIONS:

Reference to Table 1 shows that after 12 weeks' exposure in the mould test cabinet Biocheck Fungicidal Emulsion Paint was completely free of the growth of moulds. Under identical conditions of exposure a non-fungicidal control paint was extensively and heavily overgrown by mould fungi.

Plate 1 illustrates the appearance of the sets of replicate test panels after testing.

CONCLUSIONS:

- 1 Biocheck Fungicidal Emulsion Paint was completely resistant to colonisation and growth of mould fungi and pink yeasts after 12 weeks' exposure when tested by the flat panel/humidity cabinet test method.
- 2 On the basis of the results obtained, Biocheck Fungicidal Emulsion Paint can be expected to resist the growth of moulds on interior surfaces prone to condensation and mould growth.

C. Grant

C GRANT
Project Leader

A F BRAVERY
Section Head

30 April 1986

Upper row: PRP Susceptible Control Paint. Lower row: Biocheck.
PLATE I. Appearance of test panels after 15 weeks' exposure in humidified cabinet.

