



Mossgo : Effects on black discolourations on Indian Sandstone

Rate sighting trial to assess the effects of Mossgo at several concentrations
on a common garden stone substrate against black dots. June 2012

Sandstone often displays black dots : They are well ingrained and resist pressure washing.

The method developed to clean the black lichen consists in spraying the stone with a solution of Mossgo, then wait for a few weeks for the now dead growth to wither and loose it's adhesive power. A brisk brushing after 6 weeks should reduce, or remove the black stains. Repeat the action if necessary. It is important to stress that surfaces previously abraded by power jetting are more susceptible to the growth of black lichen.

A personal test was carried out by a biologist in 2011/2012. The results are shown below. TVSP Ltd is grateful to D M Ashdown for the study.

Date of Commencement of Trial: 11 October 2011

Location. Midhurst, West Sussex, Southern England

Test Substrate: Indian Sandstone

Test Substance. Mossgo (10% solution of DDAC)

Test 1. Small area test

Single 600mm square paving slabs. Single replicate per test concentration x 4 concentrations plus one control.

Application

The mix was sprinkled from a bottle simulating a watering can.

REF	Mossgo (ml)	Water ml	Total Volume ml	Concentration %	Mixing ratio
1	Control	120	120	0	
2	10	110	120	8	1 to 11
3	12	108	120	10	1 to 9
4	20	100	120	17	1 to 5
5	24	96	120	20	1 to 4

Test 2 Large area test

Circa 40 sqm test areas single replicate per concentration x 2 concentrations.

Application

5l garden sprayer.

REF	Concentration %	Mixing ratio
1	0	
2	9	1 to 10
3	6.6	1 to 14

Application conditions

Weather: Dry/overcast. Temp 21 deg C

Additional features

The test area was left untouched post treatment until the Spring. At 5 months after treatment a high pressure jet machine was used to clean off overlying algae from the test site. Each test slab was then brushed vigorously with a hard brush and then swept clean before assessment was made. Further vigorous cleaning was not required for the 9 month assessment.

Other

No attempt was to be made to quantify the numbers of colonies present, the infestation was too dense. Visual inspection and photographs were used to assess effects of treatment.

Photos were taken of test areas and levels of infestation for each small test area.



The control group showed no quantifiable difference in the number and size of black mould colonies over the course of the trial. ie a significant number of new colonies has not occurred. However the overall colour of the colonies is lighter,, perhaps due to the abrasive effect of the power wash and brushing though this is not clear



The 1 to 11 dilution group showed clear loss of mould colonies from 6 months onward. There appeared to be no obvious regrowth or reinfestation over the test period , colonies are reduced to a few at the edge of the slab and are lighter in colour indicating that weathering of the dead colonies is possibly taking place



The 1 to 9 dilution group slab was more heavily infested at the start of the trial and nearly all black mould had been eradicated at the 6 month point, with no evident reinfestation or regrowth of black mould



The 1 to 5 dilution group showed definite decline in colony numbers, although some appeared still present after 9 months and it is apparent that the colonies have lost vigour perhaps having been killed and are weathering more slowly than others



The 1 to 4 dilution slab showed clear and significant eradication of the black mould. The appearance of the slab, other than for some black spotting in the centre area was very good from an aesthetic perspective. Mirroring the effect of a well tended area of stone slabs.



Large Area Test

On the left : dilution 1 to 14, on the right 1 to 10.

Both concentrations showed good overall kill of black infestation over the surface of the test slabs, consistent with the individual slabs test. The control slab is noticeably more infested than the surrounding.

CONCLUSION

Under the conditions of the trial there are evident effects by MossGo on black lichen/mould infestation, effects are noted after 6 months, and confirmed at the 9 month interval. Interestingly, given the high level of infestation in some slabs at the start of the trial, there appears to be little evidence of significant further infestation occurring after the first colonies were killed.

Black lichen colonies were reduced in all test groups. A cost effective rate of between 1.-1.2% is shown to kill black mould and produce very acceptable results from the point of view of the author. For areas of stone paving requiring a very high level of aesthetic appearance there are evident improvements in results at the higher rates that may make these higher cost treatments worthwhile.