

Cold Chon Surface Dressing Guidelines

- Application and Aftercare

APPLICATION

The sprayer must travel at a speed appropriate to achieve the target rate of spread.

Increased accuracy in achieving the correct target rate of spread is now possible through the use of computer controlled equipment such as the dash mounted spray bar output monitoring unit.

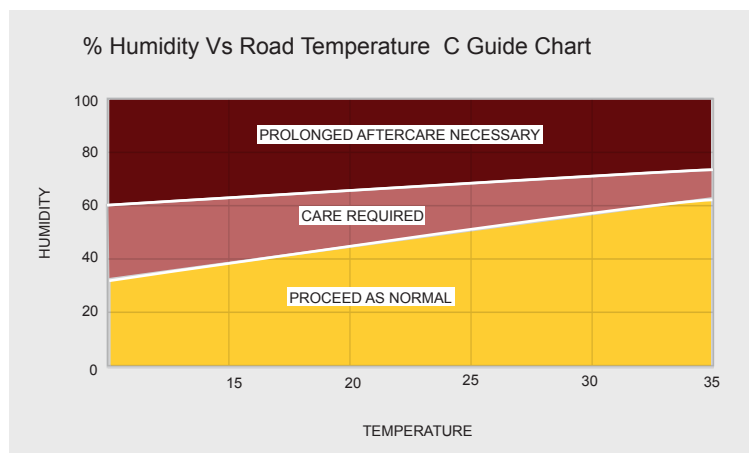
In the absence of these units several traditional methods can be used to check that the correct rate of spread is being achieved. These include:

(a) Dipstick readings taken before and after a measured section.

(b) A carpet tile placed in the path of the sprayer, weighed in a plastic bag before and after application is an accurate indicator of rate of spread. Carpet tiles laid across the full sprayer width also give a measure of transverse distribution.

(c) The distance travelled by the sprayer in 30 seconds can be measured thus giving vehicle speed which can be converted to rate of spread.

AFTERCARE



Control traffic spreads during and after the operation until a satisfactory bond has been made between the aggregate and the chippings.

If rain occurs during or immediately after surface dressing, traffic should be diverted if possible.

If traffic cannot be diverted speed should be reduced and chippings spread across the dressing (see our recommendations in relation to rate of spread of chippings, above).

Any excess chippings which have gathered on the hard shoulder or edges of the road way should be removed by sweeping.

Advance warning signs should be placed as per Chapter 8 of the Roads Traffic Signs Manual.

Cold Chon Surface Dressing Guidelines

- Chippings as per chapter 8 of Road Traffic Signs Manual

CHIPPINGS

The chippings spreader follows closely behind the sprayer (within 30m) and applies a metered single layer of chippings onto the area sprayed. Rates of spread should be within the limits of the following table.

Rate of Spread of Chippings	
Nominal Size (mm)	Rate of Application (kg/m ²)
6	6-8
10	9-12
14	12-15
20	15-20

YDS2/GALLON AND LITRES/M2

L/M2	YDS2/	GALLON	L/M2
5.44	1.00	3.62	1.50
3.63	1.50	3.88	1.40
2.72	2.00	4.00	1.35
2.30	2.36	4.18	1.30
2.20	2.47	4.50	1.20
2.18	2.50	4.94	1.10
2.10	2.60	5.00	1.09
2.00	2.72	5.44	1.00
1.91	2.86	5.50	0.99
1.81	3.00	6.00	0.91
1.80	3.02	6.04	0.90
1.70	3.20	6.50	0.84
1.60	3.40	6.80	0.80
1.55	3.50	7.00	0.77

ROLLING

Rolling follows immediately using pneumatic or rubber drum type rollers if possible. Steel wheeled rollers if used should not exceed 8 tonnes in mass. We recommend the use of double chipping to avoid damage to surface dressing under the following conditions:

- High road temperatures
- Junctions
- Bends
- After heavy rainfall
- High stress sites (e.g. roads carrying significant numbers of H.G.V.'s)

Rate of spread for double chippings are:

14mm chips to be followed by a 6mm chip at a rate of 4:1

(Note 14mm chip to be spread at the normal recommended rate as listed above)

Binder temperature application for Polymer 80 & Cationic 70 emulsions is 80°C - 85°C.

Polished Stone Value (P.S.V.)

Chippings with a P.S.V. range between 60 and 80 are recommended for all national routes and high speed roads. Chippings with a P.S.V. of not less than 52 for minor roads.

RATE OF SPREAD OF BINDER CONVERSION FACTORS -->

$$\text{Rate of spray of binder} \times \text{L/MS}^2 = \frac{5.4371}{X} \text{ YDS}_2/\text{Gallon}$$