

INITIAL SKID RESISTANCE OF NEW ASPHALT

1. INTRODUCTION

Skid resistance (as measured by SCRIM - Sideways force Coefficient Routine Investigation Machine) of some newly placed asphalt, when wet, is initially low.

This Technical Note provides guidance to managers of newly surfaced works being opened to traffic to advise motorists at higher risk locations that the skid resistance is temporarily reduced.

2. SKID RESISTANCE DEVELOPMENT

The measured Sideways Force Coefficient (sfc) varies with time and there are three stages in initial skid resistance:

1. An initial time where the sfc can be relatively low and seems to be affected by the coating materials (bitumen or polymer modified binder);
2. A time when the sfc begins to increase as the surface coating is worn off;
3. A time when the aggregate polishes and the sfc decreases towards its longer term value.

The sfc results for the various surfacings are shown in Figure 1. These results are based on traffic counts of approximately 15,000 vehicles/lane/day.

The test information shows that as the initial skid resistance of wet surfaces may be below the intended frictional resistance, temporary warning signs may be required at the following locations:

- Roundabouts;
- Approaches to pedestrian/school crossings, traffic light controlled intersections, railway level crossings and roundabouts;
- Curves with radius ≤ 250 m, gradients $\geq 5\%$ and ≥ 50 m long, freeway/highway ramps.

3. NEED FOR TEMPORARY WARNING SIGNS

The temporary sign shown in Figure 2 is suggested to advise motorists of the temporary conditions.

The Suggested number of days that the sign should be displayed at intersections, ramps and tight curves is given in Table 1.



