

Using plastic kerb

Construction Occupational Health case study COH14

This case study outlines how Costain addressed health and safety issues associated with kerb laying for the A2/A282 Dartford improvement scheme.

The problem

The more traditional type of pre-cast concrete kerbs and drainage blocks can require cutting to size and/or be heavy to handle on site.

The risks

Cutting concrete paving kerb and drainage blocks can produce large amounts of dust containing respirable crystalline silica (RCS). Breathing in that dust will put workers health at risk. There are also risks from noise, hand-arm vibration, flying debris and manual handling.

The solution

Costain decided to incorporate plastic products instead of using pre-cast concrete kerb and drainage blocks. Costain considered a range of solutions – such as smaller/pre-cut/low silica concrete blocks, cutting blocks off site, or using water suppression when cutting.

However, Costain decided to use a plastic kerb product because it also reduced the loading on the four structures in which the products were to be incorporated. As well as the production and commercial wins, there were also health and safety benefits.

The benefits

- In total these structures measured 1025 m in length (2 x 250 m, 1 x 475 m and 1 x 75 m). A four-man gang was achieving outputs of 250 m a day.
- There was no need to cut any of the products, thus eliminating any potential harm to the respiratory system.
- Due to the reduced weight of each unit, which varied between 6 kg and 14.5 kg, they were able to significantly reduce manual handling risks.

Key points

- Looking at a range of methods and products is an essential part of the risk management process.
- Revising current practices can reduce or even eliminate health and safety hazards.
- Production and commercial wins.



Figure 1



Figure 2