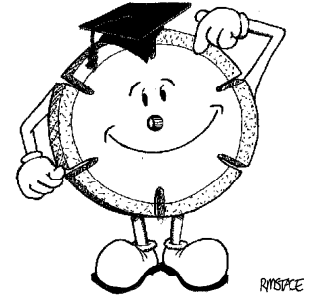


DIAMOND BLADEMAN

DIAMOND TIPS



It is said by many, that cutting green concrete is an art, not a science. Perhaps it is. Certainly it can be quite a challenge, and there seem to be few guarantees of a successful outcome.

The many variables involved make it extremely difficult to judge when and where the concrete will or won't crack. Variables meaning atmospheric temperature, presence of wind, moisture content of the concrete, concrete constituents, where control joints have been made, how deep the cuts are etc

As a general rule, cutting early rather than late, and more rather than fewer joints, will reduce the likelihood of cracking. Can the concrete be cleanly cut (minimally spalled) in a very green or uncured state? Answer- often with difficulty. But there are a few techniques which will help.

Firstly, because the uncured concrete is not holding the aggregate very firmly, any pressure from a blade on a pebble or piece of aggregate will create the potential for ejection from the concrete. Pebble is worse in this respect, than angular aggregates, because the smooth surface makes a tenacious mechanical grip rather unlikely in the early stages of cure.

The choice of cutting method is important when the concrete is very green. Some contractors save their nearly worn out green concrete or cured concrete blades for this task, as they have become much thinner with wear, and put less pressure on the concrete aggregates.

Other contractors will use thinner continuous rim, or turbo blades, to reduce the likelihood of spalling, and some specialists resort to early entry concrete saws specifically designed for this purpose. These saws may cut without water, use special blades and devices to hold the concrete in place while it is being cut, and are often critically used by the concrete laying contractor.

Although not talked about very much, water can dislodge aggregate. A stream of blade coolant carried with the blade in the cut is ejected at approximately 9000 surface feet per minute. That is sufficient force to remove stones from the concrete edge just produced by the blade. For this reason many green concretes are cut with little or no water.

First class mechanical condition of the saw will improve the cutter's chances of success as will a long pointer to minimise curves cuts and side pressures on the blade.

Green concrete is a fragile material. It's contrary. It needs care and skill, and an ounce of luck. Do remember to make the first exploratory cuts where any problems will be of least significance to the proud new owner.

Ejection of the layer, as well as the aggregate, can occur in severe cases of a marred job!

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