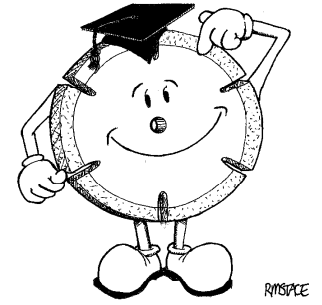


DIAMOND BLADEMAN

DIAMOND TIPS



AGGREGATE HARDNESS

The aggregate hardness in concrete has a major part to play in the choice of the diamond blade bond. Hard aggregate requires a softer bond than soft aggregate.

Diamonds wear faster when cutting hard aggregate concrete and slower than when cutting a softer aggregate concrete. To keep the blade sharp the bond must allow fresh new diamonds to begin working as the work worn diamonds degrade in performance.

Rapid diamond wear in very hard aggregate concrete requires a softer bond than a softer, more easily cut aggregate..

The Moh's scale of hardness is used to categorise aggregate hardness.

In 1822 Frederick Mohs, an Austrian mineralogist, published the classic scale for hardness. Apparently he got the basic concept from scratch tests used by miners. The scale has 10 minerals as standards, arranged in order of increasing hardness(with a few extras). These are:

- 1 = Talc
- 2 = Gypsum
- 3 = Calcite, most Marbles
- 4 = Fluorite
- 5 = Apatite (Fluorapatite)
- 6 = Orthoclase ,Feldspar
- 7 = Quartz,high quartz granites
- 8 = Topaz
- 9 = Corundum
- 10 = Diamond

Rule of fingernail:

A fingernail has a hardness of 2.5,
...a cent has a hardness of about 3.5,
...glass and a steel nail about 5.5

Chert and flint, are 7-9

Quartzitic river gravels, some granites 5-7

Hard limestones, some softer granites, Dolomites, Schist, Traprock, marble 3-5

Soft limestone 2-3

