

Drawing Materials

Pencils

For general drawing, sketching, and layout, use a drawing pencil. Drawing pencils have a wood casing around a core of graphite or composite. The composition of the core, called a lead, and the hardness of the lead determine the grade or rating of a pencil.

The pencil 'lead' is a mixture of powdered natural graphite and clay baked in some specific temperatures. According to the hardness of the lead a larger or smaller proportion of graphite-clay is used. The larger the clay proportion the harder the pencil.

Hard pencils: Produce dry, tenacious, greyish tones and have medium to fine thickness leads. Used for detail drawing and producing lighter tonal shading.

Soft pencils: Produce 'oily' with oily, fragile, dark tones and have much thicker leads. Soft pencil marks are easily smudged and are therefore not softer than perhaps a B or 2B in watercolour painting. Used for looser, bolder drawings and darker tonal shading.

Pencil Grades: Pencils grades from 9B which is the softest to 9H, the hardest. Soft leads are 9B to 2B and have a thick-diameter core. Soft leads are best used in freehand work where smudging is a creative option. Medium-rated leads are the B to 3H pencils. These are general layout pencils sometimes used for freehand work. Technical drawing and drawing that requires a degree of precision are done by hard-leaded pencils in the 4H to 9H range. Hard-leaded pencils have a small-diameter core and tend to appear lighter in density than a soft-leaded pencil. Variations do occur among manufacturers.



SOFT FREE HAND DRAWING					MEDIUM FREE HAND DRAWING AND GENERAL LAYOUT					HARD TECHNICAL DRAWING						
6B	5B	4B	3B	2B	B	HB	F	H	2H	3H	4H	5H	6H	7H	8H	9H

DMHP0075

In the past there have been other grading systems. Some manufacturers produce an 'F' grade pencil, the 'F' grading means 'fine' and is a throwback to an earlier grading system.

H stands for 'hard', **B** stands for 'bold', **F** stands for 'fine'.

You can see from the chart above both **F** and **HB** (the modern grading for F pencils) are graded between the hard and soft ranges.

Pencil Care: Take care not to drop a pencil or rap it against a surface. This will break the lead internally and drastically shorten the life of the pencil. Keep a drawing pencil sharpened by using a sandpaper sharpener, a draughtsman's pencil sharpener, or a standard office sharpener. A blunt pencil sharpener blade will also break leads when sharpening. Replace blade/sharpener if you suspect this.

Pencil Rubbers (Erasers): Buy a quality rubber from an art shop. A firm rubber is more useful on cartridge paper using harder grade pencils. Soft, pliable rubbers, called putty rubbers, are useful for the softer grades and for use on watercolour paper where it is less likely to damage the paper surface.