
Nioi & Nie

As the size of the steel crystals that make up the hamon can be controlled, even this can be a key identifier for individual artisans or schools. Fine, mist-like crystals are called 'nioi' (literally, 'scent'), while coarser, individually discernible crystals are called 'nie' (literally, 'seething' or 'bubbling').

Nioi
匂



Before quenching, if the blade is heated to a lower temperature (~730°C), the final crystal structure will be the finer 'nioi' variety. If most of the hamon is based on 'nioi', it is said that it is 'nioi deki'.

The higher the temperature pre-
quench, the larger the crystals
become. If quenched at about 790°C,
the crystals are called 'nie' and are
large enough to be visible in the
finished sword. When mostly made
of nie, it is said that the hamon is 'nie
deki'.

Nie
沸

