

The KMX3 is high-wear-resistance, high-tenacity, and high-cost-performance high-speed tool steel for cold plastic machining that features hardness as high as 64 HRC or more.

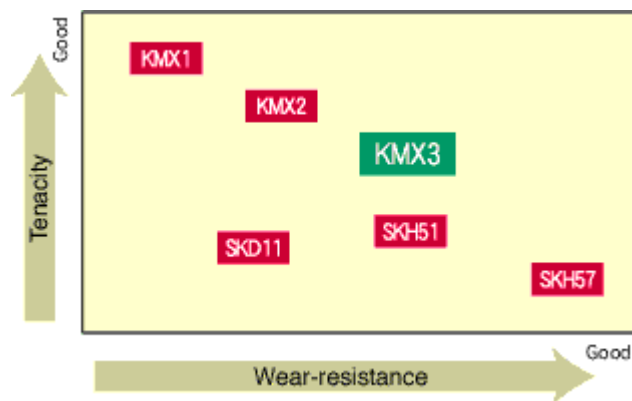
Features of KMX3

- Superior cost-performance** ●* Superior performance equivalent to the SKH51 offers high cost-performance.
- Superior tenacity** ● Greater tenacity than the SKH51 suppresses cracks and chipping, which are the causes of a shorter service life of tools.
- Safe tool life** ● Hardness as high as 64 HRC or more, and wear resistance equivalent to the SKH51 ensures wide applications to tools.

Applications

- Cold punching
- Trimming dies
- Coining dies
- Thread-rolling dies
- Cold-forming rolls
- Slitter knives

Position of KMX3

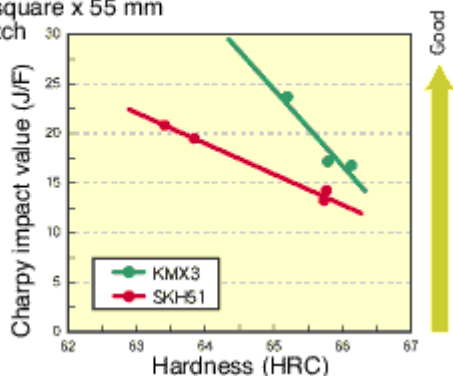


Tenacity

Higher tenacity than the SKH51 by approximately 20%, even in the hardest range, ensuring a very long life.

Test condition

- Test piece dimensions: 10 mm square x 55 mm
- 10 R notch

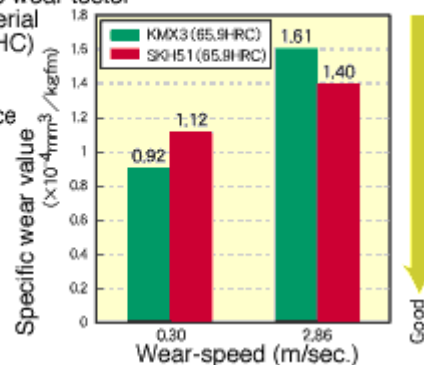


Wear-resistance

Offers wear-resistance equivalent to the SKH51.

Test conditions

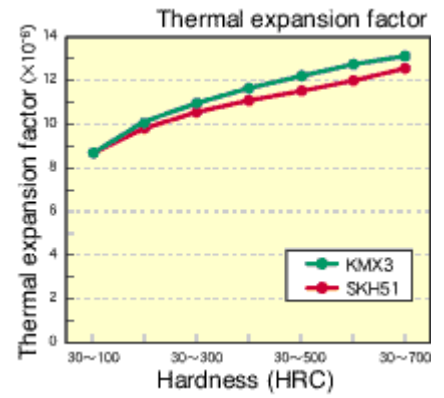
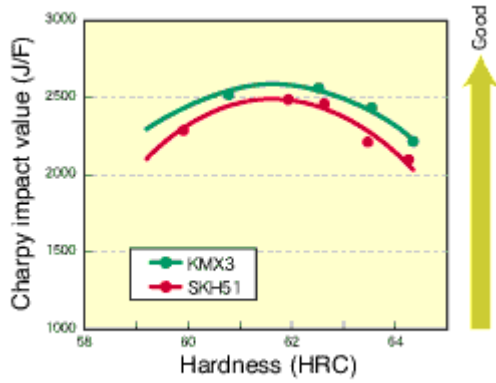
- Tester: Okoshi-type wear tester
- Mating material: SUJ2(45RHC)
- Load: 6.3kgf
- Wear-distance: 400m



Tensile strength

Physical characteristics

Offers tensile strength superior to the SKH51.



Thermal processing characteristics

Recommended thermal processing conditions

Hardening	Annealing	Hardness
1000~1170°C Oil cooling, compressed gas cooling	540~600°C hot bath cooling Air cooling (performed twice)	62~65 (HCR)

Test conditions

- Test-piece dimensions 10×20×10mm
- Hardening time Oil cooling for 10 min.
- Annealing time Air cooling for 90 min. (performed twice)

- 1170°C Hardened
- 1150°C Hardened
- 1130°C Hardened

