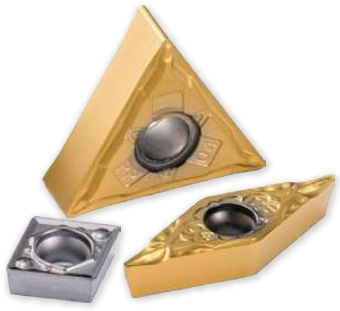
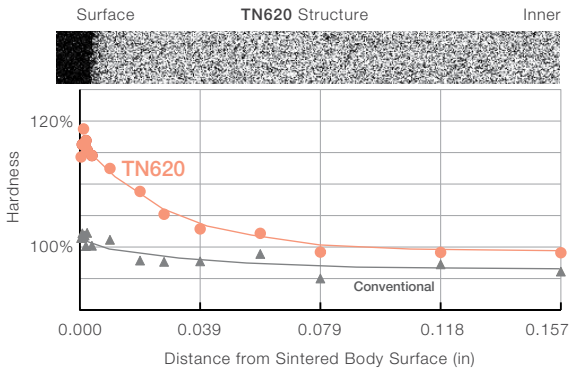
STEEL MACHINING

NEW TN620 / PV720 General Purpose
NEW TN610 / PV710 High Speed Continuous Machining



SURFACE HARDENED *"HYBRID STRUCTURE"*

Surface-Hardened Hybrid Structure



Surface Structure
(High Hardness Cermet)
• High wear resistance

Inner Structure
(High Toughness Cermet)
• Chipping and thermal shock resistance

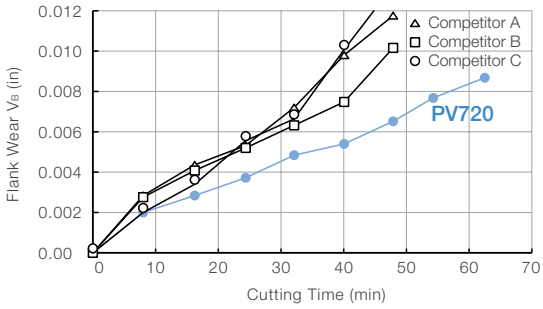
(Internal Evaluation)

TN620's inner structure has high toughness and chipping resistance along with thermal shock resistance. TN620 has a higher hardness and greater wear resistance than that of the conventional micro grain cermet.

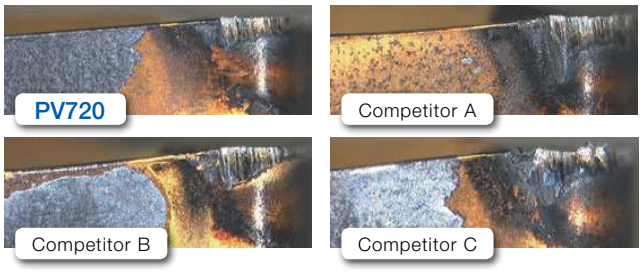
IMPROVED TOUGHNESS AND RELIABILITY

PV720 improves performance by adopting composite lamination of MEGACOAT NANO and special TiN to combine high adhesion resistance and great visibility of the used cutting edge even in dim light.

Wear Resistance Comparison



Cutting Conditions
Workpiece : 4137 Steel
Vc = 820sfm
D.O.C. = 0.039"
f = 0.008ipr : Wet
Insert: CNMG432PQ



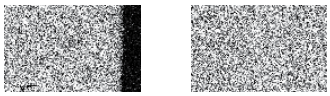
Flank wear condition after machining 48 minutes.

(Internal Evaluation)

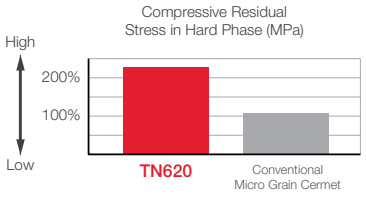
EASY TO VIEW CUTTING EDGE WEAR

Improved strength with uniform micro grain hard phase and superior compressive stress with high melting point bonded phase. This combination yields greater fracture resistance.

TN620 Structure

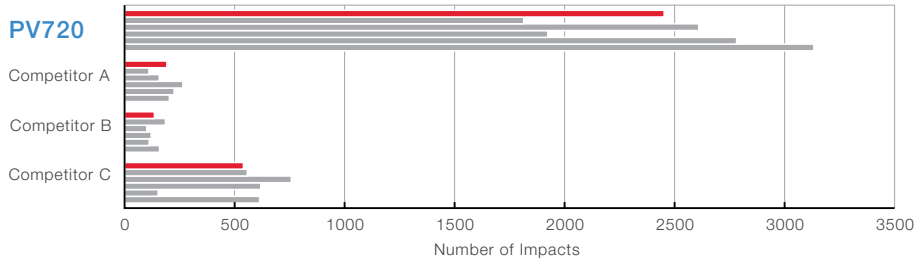


Surface Structure *Inner Structure*



(Internal Evaluation)

Fracture Resistance Comparison



Cutting Conditions
Workpiece : 1045 Structural Steel
Vc = 820sfm
D.O.C. = 0.039"
f = 0.008ipr : Wet
Insert: CNMG432PQ

(Internal Evaluation)