EternAloy® "Hard 'N Tough"
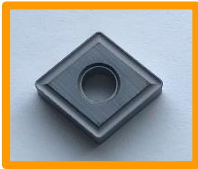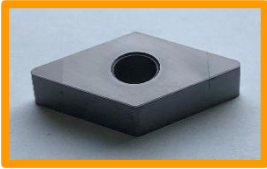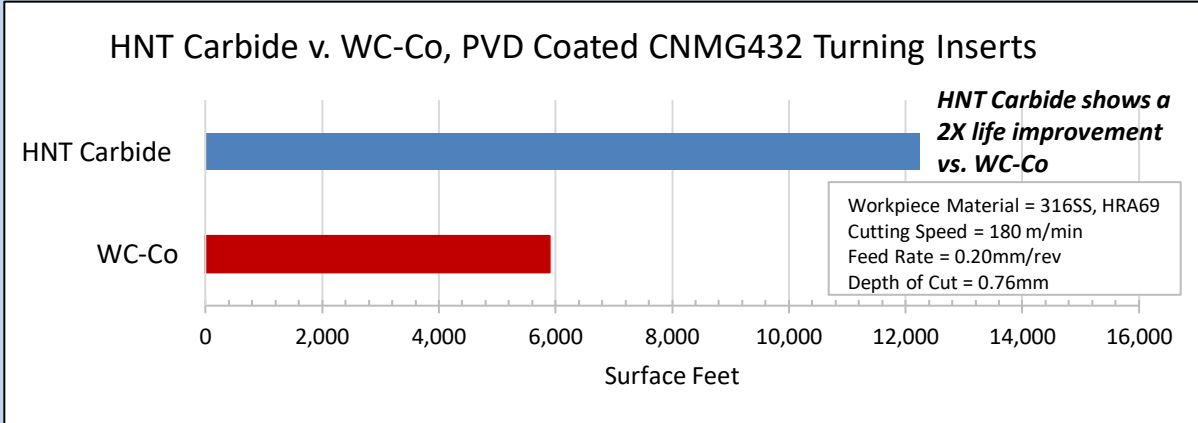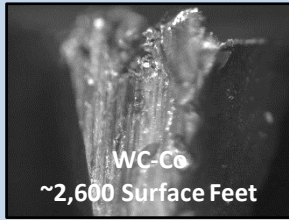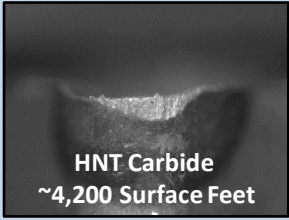
EternAloy® HNT Inserts and Insert Blanks are produced from high performance metallurgical powders that possess extreme combined hardness and toughness. EternAloy® HNT powders are created using patented, proprietary processes known as "Tough-Coated Hard Powder (TCHP)" process technology that provides material strength, durability and exceptional wear performance.

HNT Materials
"Produced from EternAloy's TCHP Technology"

*EternAloy® TCHP **HNT Carbide** provides increased tool life and higher productivity when compared to most popular tungsten carbide cutting tools.*

HNT Carbide v. WC-Co, PVD Coated CNMG432 Turning Inserts

HNT Carbide shows a 2X life improvement vs. WC-Co

Workpiece Material = 316SS, HRA69
Cutting Speed = 240 m/min
Feed Rate = 0.20mm/rev
Depth of Cut = 0.76mm

(x-axis: Surface Feet, 0 to 6,000)

HNT Carbide
~4,200 Surface Feet

WC-Co
~2,600 Surface Feet

HNT Carbide v. WC-Co, PVD Coated CNMG432 Turning Inserts

HNT Carbide shows a 2X life improvement vs. WC-Co

Workpiece Material = 316SS, HRA69
Cutting Speed = 180 m/min
Feed Rate = 0.20mm/rev
Depth of Cut = 0.76mm

(x-axis: Surface Feet, 0 to 16,000)

HNT Carbide
~12,800 Surface Feet

WC-Co
~10,000 Surface Feet

EternAloy®
www.eternaloy.us

509 Hahntown Wendel Road
North Huntingdon, PA 15642

TEL: (724) 864-4787
sales@eternaloy.us
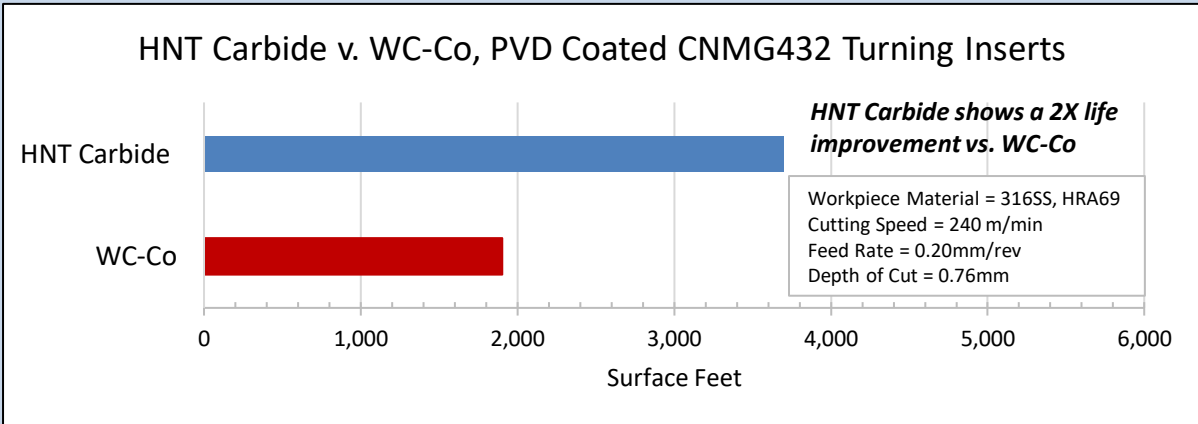
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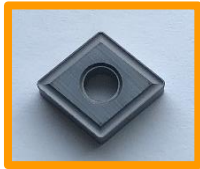
HNT Materials
"Produced from EternAloy's TCHP Technology"

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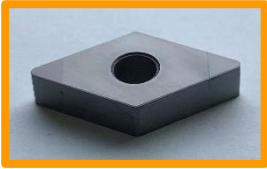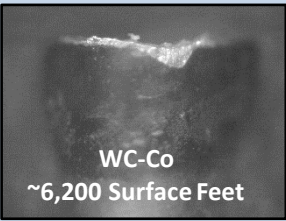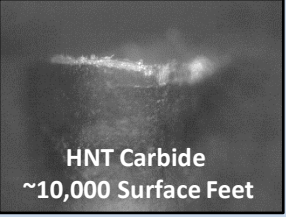
HNT Carbide v. WC-Co, PVD Coated CNMG432 Turning Inserts

HNT Carbide shows a 2X life improvement vs. WC-Co

Workpiece Material = 316SS, HRA69
Cutting Speed = 220 m/min
Feed Rate = 0.30mm/rev
Depth of Cut = 0.76mm

(Bar chart: HNT Carbide ≈ 3,900 Surface Feet; WC-Co ≈ 1,800 Surface Feet. X-axis: Surface Feet, 0 to 6,000)

HNT Carbide ~4,000 Surface Feet

WC-Co ~2,100 Surface Feet

HNT Carbide v. WC-Co, PVD Coated CNMG432 Turning Inserts

HNT Carbide lasts 50% longer than WC-Co

Workpiece Material = 316SS, HRA69
Cutting Speed = 150 m/min
Feed Rate = 0.30mm/rev
Depth of Cut = 0.76mm

(Bar chart: HNT Carbide ≈ 10,000 Surface Feet; WC-Co ≈ 6,700 Surface Feet. X-axis: Surface Feet, 0 to 14,000)

HNT Carbide ~10,000 Surface Feet

WC-Co ~6,200 Surface Feet
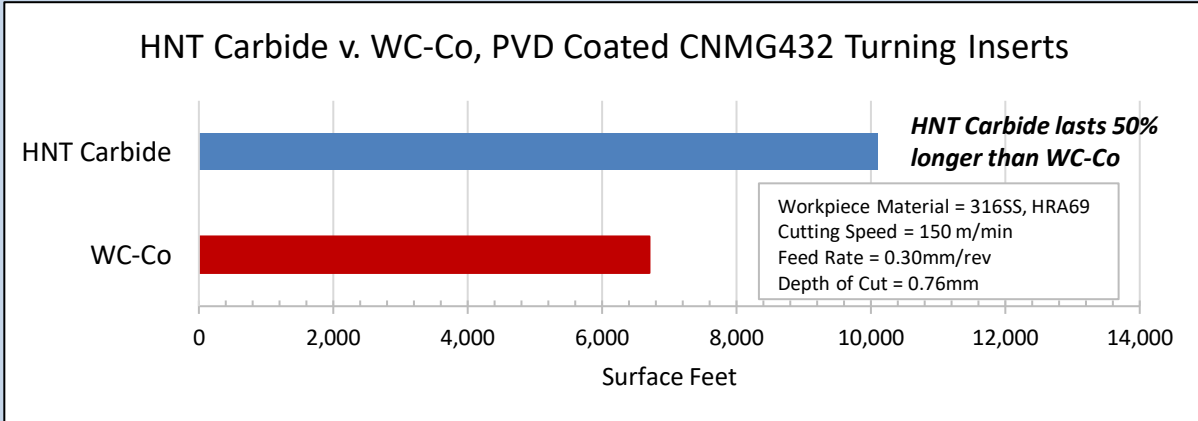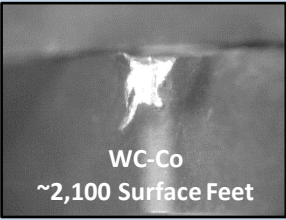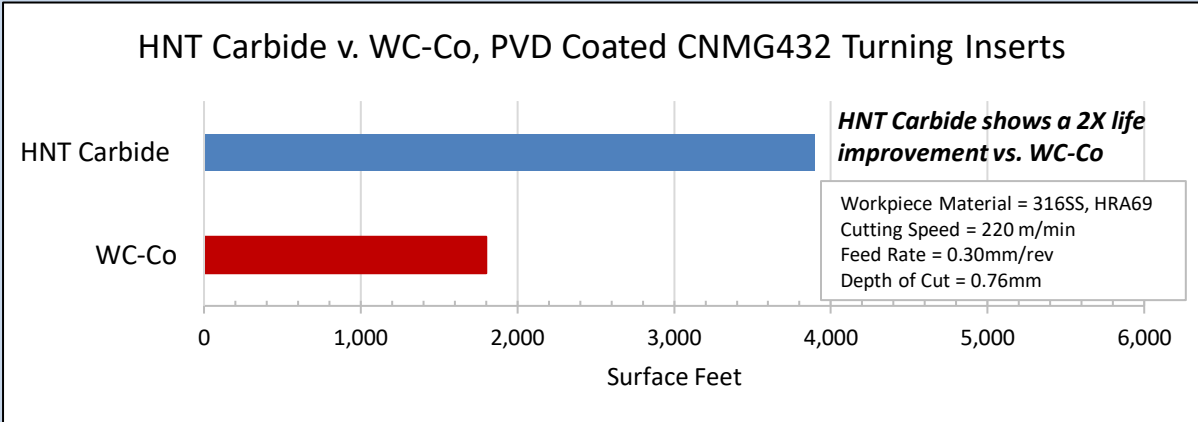

EternAloy® "Hard 'N Tough"

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HNT Materials
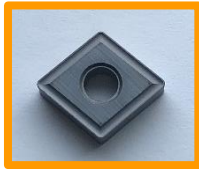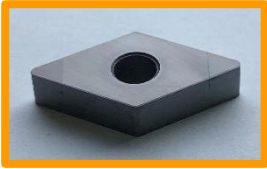"Produced from EternAloy's TCHP Technology"

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*EternAloy® TCHP **HNT Carbide** provides increased tool life and higher productivity when compared to most popular tungsten carbide cutting tools.*

HNT Carbide v. WC-Co, PVD Coated CNMG432 Turning Inserts

HNT Carbide lasts 50% longer than WC-Co

Workpiece Material = 316SS, HRA69
Cutting Speed = 220 m/min
Feed Rate = 0.40mm/rev
Depth of Cut = 0.76mm

Surface Feet (axis: 0, 500, 1,000, 1,500, 2,000, 2,500, 3,000, 3,500, 4,000)

HNT Carbide
~2,100 Surface Feet

WC-Co
~1,700 Surface Feet

HNT Carbide v. WC-Co, PVD Coated CNMG432 Turning Inserts

HNT Carbide lasts 20% longer than WC-Co

Workpiece Material = 316SS, HRA69
Cutting Speed = 150 m/min
Feed Rate = 0.40mm/rev
Depth of Cut = 0.76mm

Surface Feet (axis: 0, 500, 1,000, 1,500, 2,000, 2,500, 3,000, 3,500, 4,000)

HNT Carbide
~2,300 Surface Feet

WC-Co
~2,300 Surface Feet