



THE AMERICAN DRILL COMPANY

# Rocky Mountain Blue™

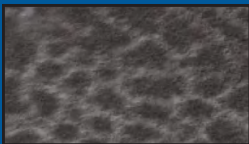
nACo® Coating



## Features & Benefits

- Extreme temperature resistance, maintaining structural integrity at temperatures up to 1200° C.
- Extreme Hardness
- RMT testing shows a 40% increase in tool life (coated vs uncoated) in dry drilling!
- Extremely low friction coefficient
- Better choice for drilling in steel and stainless steel.
- Increased feeds and speeds over TiAlN with equivalent or better tool life, decreasing the cost per hole.
- Tune setup to your application for improved drilling speed and/or life.
- Lower cost per hole. Pays for itself.
- This flagship coating is unmatched for its combination of performance characteristics.

## What are Nanocomposites

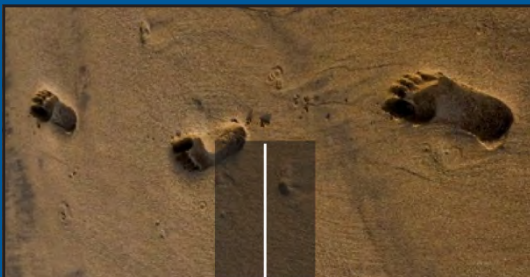


nACo is a trademarked term for Nanocomposites (NC).

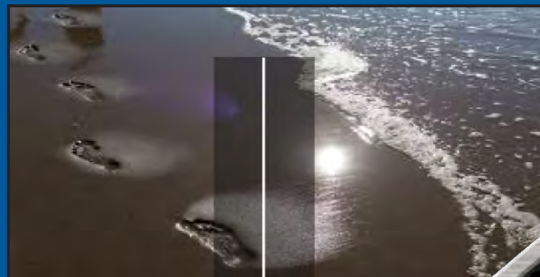
Nanocomposites (NC) consist of an adhesion and a core layer. The core layer consists of 2 phases: hard, nanocrystalline grains (e.g. TiN, TiAlN or AlCrN grains) are embedded in an amorphous SiN matrix, which prevents the grain from growing and creates the nanocomposite structure. nACo is an example.

Sand on a beach can serve to illustrate the increase in hardness achieved by the nanocomposite structure: normally, a person's foot will sink into dry sand. If the sand is wet, their foot will not sink in as far, because the space between the grains is filled with water. The combined surface has a higher resistance and is therefore harder.

Hardness



TiAlN



AlTi(Si)N





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## A Cut Above

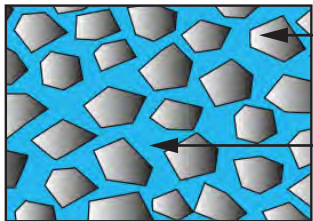
The nCo finish is exclusive to Platin Coating Chambers. Platin Exclusive LARC (lateral rotating cathode) coating process results in smooth even coating deposition.

Typically reserved for Carbide this coating was thought to be overkill for HSS. Our testing however has shown significant performance gains with HSS and HSCO



## Triple Layer Coating

TiN - TiAlN - TiAlN/SiN (Silicon Nitride)



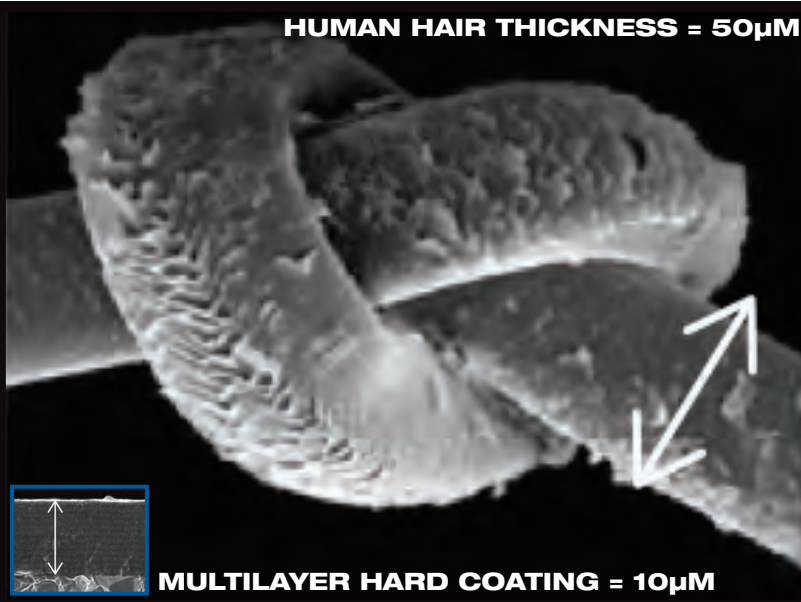
**TiAlN**

Hard and low friction  
Long wear

**SiN**

Temperature impervious ceramic  
Promotes nano structure

**HUMAN HAIR THICKNESS = 50µm**



**MULTILAYER HARD COATING = 10µm**



\*No Smurfs were harmed in the production of this coating

