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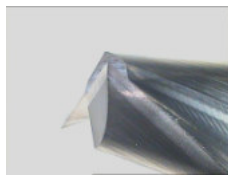
Hard and tribological coating
implemented by PEMS technology.

<u>Composition :</u>	Titanium- Aluminium- Nitrogen based coating
<u>Structure :</u>	CCF, dense, nano-scaled grains
<u>Temperature resistance:</u>	Up to 800°C depending on test protocol.
<u>Hardness :</u>	3000 HV .
<u>Process Temperature :</u>	300 to 450°C, according to the substrate material.
<u>Thickness :</u>	typically 1 to 5 µm according to application.

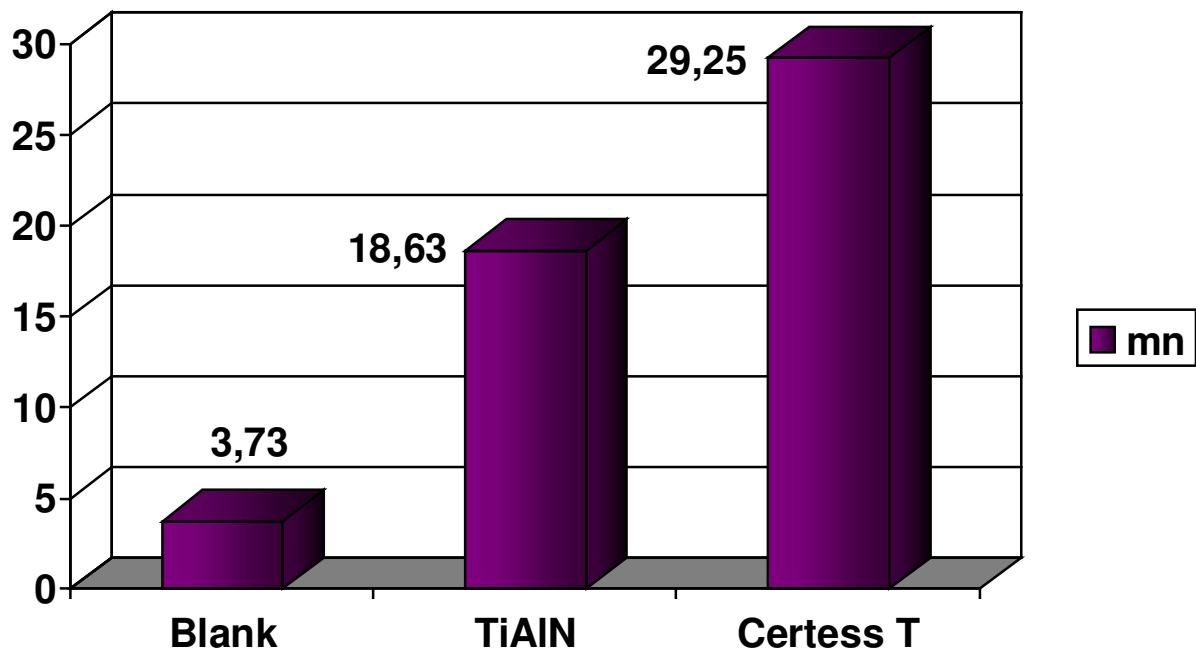
Typical applications :

- Mechanical parts for abrasive wear resistance at high temperature
- Cutting tools,

Example: Dry milling, 4140 steel, 260 HB, 430 m/mn.



$V_c = 430$ tr/min
 $A_p = 0,5$ mm
 $A_e = 2$ mm
 $V_f = 2280$ mm/min



Acceptable materials to be coated :

- Metals and alloys with no or small content of Zn, Mg, Pb...
- Carbides, plain or brazed on steel part,
- Allowing a process temperature : minimum 150°C.

Other characteristics :

- Coating on finished part,
- no significant dimension variation,
- no significant roughness variation,
- Excellent chemical inertia.