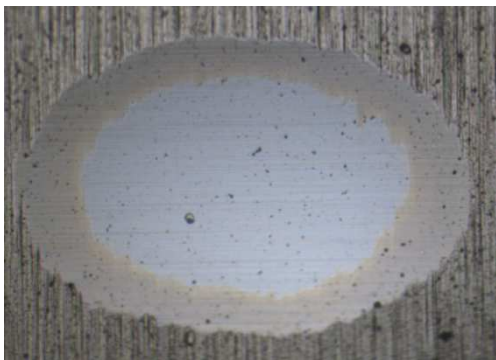


Process Specification HE A plus (TiCN+CrN+X)



Features:

Title: HE A Plus Process No.: 690
 Product Code: HE A plus
 Construction: The graded layer is built up with increasing carbon content and is based on a TiCN + CrN and additional alloy components for a high hardness
 Color: light silver (chrome overlay)
 Layer thickness: 2,5 - 3,5 microns can also be a thin layer of about 1.5 microns
 Micro hardness: (HV 0.05): 3500
 Temperature resistance: 800 °C
 Post-treatment: wet blasting
 Pretreatment: Edge rounding cutters at about 10 - 15 microns, depending on the needs of the customer



graded layer structure thickness 3 µm

fields of application:

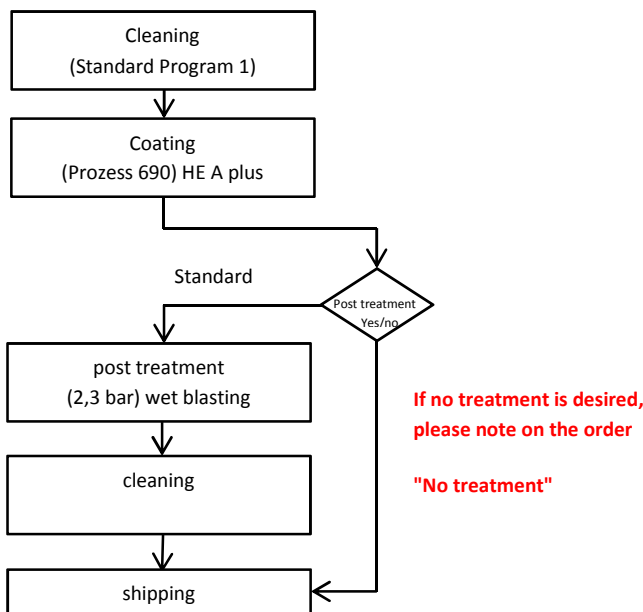
Machining of difficult to cut materials, stainless steels, titanium, cast iron, aluminum with very high silicon content, cast aluminum combinations.

drills; end mills; reamers and inserts

advantages:

The high carbon content in conjunction with titanium and chromium protects the tools against abrasive wear – the top layer is very smooth and avoided sticking of material

Process flow:



Prozess – Spezifikation	PLASMA plus GmbH & Co.KG		Dipl. Ing. (FH) Markus Knecht
HE A plus Prozess Nr.: 690	Erstellt: Aug. 2013	Stand: 24.08.2013	Dokument: 17/006