



CERTESS[®] X

**Hard and tribological coating
implemented by PEMS technology.**

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| <u>Composition :</u> | Chromium- Nitrogen based coating |
| <u>Structure :</u> | Quadratic, dense, nano-scaled grains |
| <u>Temperature resistance:</u> | Up to 700°C depending on test protocol. |
| <u>Hardness :</u> | 2200 HV . |
| <u>Process Temperature :</u> | 150 to 350°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,
- Plastic moulds for adhesion and wear problems,
- Electrical components



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,
- Excellent chemical inertia.
- Excellent solution to replace hard Chrome plating
- Avoiding Cr VI (exavalent)